

Open Research Online

The Open University's repository of research publications
and other research outputs

Learner-Centredness and Teacher-Educators in India: A Case Study of a Teacher-Educator at a District Institute of Education and Training

Thesis

How to cite:

Sarkar, Sumita (2015). Learner-Centredness and Teacher-Educators in India: A Case Study of a Teacher-Educator at a District Institute of Education and Training. MRes thesis The Open University.

For guidance on citations see [FAQs](#).

© 2015 The Author

Version: Version of Record

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

1 511.544 SMK 2014
Consultation copy

31 0349273 2



UNRESTRICTED

Learner-centredness and Teacher-educators in India

A case study of a Teacher-educator at
a District Institute of Education and Training

Sumita Sarkar

Supervisors

Steven Hutchinson and Alison Buckler

Submitted in partial fulfilment of the requirements for the
Degree of Master in Research (Education)
Centre for Research in Education and Education Technology
The Open University

2014

DATE OF SUBMISSION = 1 SEPTEMBER 2014

DATE OF AWARD = 15 JANUARY 2015

ProQuest Number: 13834861

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13834861

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

ACKNOWLEDGEMENTS

I would like to thank my supervisors Alison Buckler and Steven Hutchinson for the immense time, energy, and knowledge they shared to begin understanding why children drop out of school. Without their constant encouragement and belief in me I would not have had the courage to take the leaps in my thinking that I did. So much has been covered in so short a time. Thank you.

I would like to thank Open University for this opportunity to aspire once more to contribute to much needed change, starting with this small step of an MRes, to Martyn, John and Stephanie for being such inspirational teachers.

I thank the principal of the DIET I researched at and the many teacher-educators and student-teachers who allowed me in and made this project possible.

I thank Maan and Baba for their blessings. It gave me strength to take this on, my husband, Avik, for his constant support to reach base camp, my sons Ritwik and Armaan for cheering me on from the sidelines, Bari for holding fort, and friends for their faith in me.

My thanks to my colleagues at OU for their constant support and for nudging me to the finish line by doing things right.

ABSTRACT

Learner-centred education (LCE) has gained firm policy support for school education in India to change from the prevalent teacher-led practice to one in which the learner is actively involved. It has been suggested that this shift calls for new ways of teaching and learning. However, there is little published research on prevalent practices in Indian teacher-educators' classrooms in teacher-training institutes.

This small-scale case study seeks to provide insights into the learner-centredness of a teacher-educator in her conception and practice and how a District Institute of Education Training (DIET) in India supports LCE as recommended by the National Curriculum Framework for Teacher Education (2009) and international discourse.

The research was ethnographically led with data collected from classroom observations, semi-structured interviews and a group discussion, and analysed thematically. The study was influenced by the theoretical framework provided by the Activity Theory that underlines the importance of interactions between the principal, teacher-educators, students, rules, facilities, systems, processes and environment at the DIET.

This research report provides a qualitative overview of the learner-centredness of a teacher-educator in her classroom by using a rubric tool developed for the purpose. The study found that while the teacher-educator's own beliefs and experience influence her to become a learner-centred teacher, the teacher education institute also plays a crucial role in influencing and developing her understanding of LCE in theory and practice. This has implications for the professional development of teacher-educators and systemic changes needed in teacher education institutes adopting LCE to develop learner-centred primary school teachers.

CONTENTS

ACKNOWLEDGEMENTS.....	3
ABSTRACT.....	5
LIST OF FIGURES AND TABLES	10
LIST OF ACRONYMS.....	11
1 AIMS AND OBJECTIVES.....	13
1.1 INDIA'S CHALLENGES IN EDUCATION.....	13
1.2 NEED FOR LEARNER-CENTRED EDUCATION (LCE).....	13
1.3 POLICY CHANGES IN INDIA.....	14
1.4 TEACHER EDUCATION AT DISTRICT INSTITUTES FOR EDUCATION AND TRAINING (DIETs).....	15
1.5 CRISIS IN TEACHER-EDUCATION.....	15
1.6 RESEARCH QUESTIONS.....	16
2 LITERATURE REVIEW	17
2.1 LEARNER-CENTRED EDUCATION AND RELATED TERMS	17
2.2 THE PROMISE OF LCE Vs. TEACHER-CENTRED EDUCATION (TCE).....	18
2.3 THE ROLES AND EDUCATION FOR TEACHER-EDUCATORS.....	19
2.4 PRACTICE GUIDELINES FOR TEACHER-EDUCATORS.....	19
2.5 VIEWING LEARNER-CENTRED EDUCATION QUALITATIVELY IN CONTINUUMS	22
2.6 CHALLENGES OF LCE IMPLEMENTATION.....	24
2.7 APPLYING ACTIVITY THEORY.....	24
2.8 CONCLUSION	26
3 RESEARCH DESIGN, DATA COLLECTION AND ANALYSIS.....	29
3.1 METHODOLOGICAL FRAMEWORK FOR QUALITATIVE RESEARCH	29
3.1.1 Methodology	29
3.1.2 The site for data collection.....	30
3.1.3 Access for field work through a gatekeeper.....	30
3.1.4 Identifying the participants and planning the schedule.....	30
3.1.5 Ethical considerations	31
3.2 DATA SOURCES: PLANNING AND COLLECTION.....	32
3.2.1 Semi-structured Interviews	33
3.2.2 Classroom observation.....	34
3.2.3 Focus group discussion.....	34
3.2.4 Using equipment and media for recording data	35
3.2.5 Translation and transcriptions	36
3.3 DATA ANALYSIS: METHODOLOGY, TOOLS AND PROCEDURE.....	36

3.4	REFLECTIONS ON THE METHODOLOGY.....	38
3.4.1	Reflections on data collection.....	38
3.4.2	Reflexivity and research persona.....	38
3.4.3	Language.....	39
3.4.4	Timing of the study.....	39
3.4.5	Reciprocity.....	40
3.5	CONCLUSION.....	40
4	DATA INTERPRETATIONS.....	41
4.1	WHAT ARE THE TEACHER-EDUCATOR'S CONCEPTIONS OF GOOD TEACHING?.....	41
4.1.1	Personal influences.....	41
4.1.2	Conceptions of good teaching.....	42
4.1.3	Conceptions of child-centred education.....	43
4.1.4	Conception of learner-centred education.....	44
4.1.5	Differences in conceptions in teaching children and adults.....	45
4.1.6	Alternate, traditional system of beliefs.....	46
4.1.7	Reflections on analysis: Conceptions of good teaching.....	46
4.2	HOW DOES THE TEACHER-EDUCATOR.....	47
	APPLY LEARNER-CENTREDNESS IN CLASSROOM PRACTICE?.....	47
4.2.1	Motivation, engagement and mutual respect.....	50
4.2.2	Knowledge is fixed.....	51
4.2.3	Authoritarian and democratic.....	51
4.2.4	A mixture of frontal transmission and inquiry.....	51
4.2.5	Collaborative group work within a fixed curriculum.....	52
4.2.6	Practice teaching.....	52
4.2.7	Spaces in class to address misconception and build self-conceptions.....	52
4.2.8	Reflections on analysis: Towards a learner-centred practice.....	52
4.3	HOW DOES THE DIET INFLUENCE THE TEACHER-EDUCATOR'S LEARNER-CENTREDNESS?.....	53
4.2.9	Gap in NCFTE (2009).....	54
4.2.10	Policy implementation: Lack of a systemic plan.....	54
4.2.11	Recruitment of teacher-educators.....	56
4.2.12	Lack of experience in teaching primary school children.....	56
4.2.13	Lack of knowledge about LCE.....	57
4.2.14	Role of the principal in influencing learner-centredness in the DIET.....	57
4.2.15	Loaded work roles of teacher-educators in a DIET.....	58
4.2.16	Large number of students.....	58
4.2.17	Facilities at the DIET.....	58
4.2.18	Reflecting on analysis: DIET influences.....	59
4.3	CONCLUSION.....	60

5 DISCUSSION AND IMPLICATIONS	60
INTRODUCTION	61
5.1 INTRODUCTION OF NCFTE (2009) AND PLANNED CHANGE MANAGEMENT	61
5.2 DEVELOPING A CONSTRUCTIVIST ENVIRONMENT AT THE DIET	63
5.3 TRAINING, DEVELOPMENT AND ROLE DEFINITION FOR THE PRINCIPAL AND TEACHER-EDUCATORS	64
5.4 CONTEXTUALISED LEARNER-CENTRED TEACHER EDUCATION	64
5.5 CONCLUSION	66
REFERENCES	67
APPENDICES	73
APPENDIX BOX 4.1: INTERVIEW EXTRACT OF TE1'S CONCEPTION OF CHILD-CENTRED EDUCATION	44
APPENDIX BOX 4.2: INTERVIEW EXTRACT OF TE1'S CONCEPTION OF LEARNER-CENTRED EDUCATION	45
APPENDIX BOX 4.3: INTERVIEW EXTRACT OF TE1'S CONCEPTION OF DIFFERENCES IN TEACHING CHILDREN AND ADULTS	45
APPENDIX BOX 4.4: INTERVIEW EXTRACT SHOWING TE1'S TRADITIONAL BELIEFS	46
APPENDIX BOX 4.5: FOCUS GROUP EXTRACT ABOUT LACK OF PRIMARY SCHOOL EXPERIENCE	56
APPENDIX BOX 4.6: FOCUS GROUP EXTRACT OF HOW TE'S WOULD PREPARE THEIR LEARNER-CENTRED LESSONS	57
APPENDIX 2.1 REPRESENTATIVE LITERATURE REVIEW ANALYSIS OF LCE IN THE CONTEXT OF DEVELOPING COUNTRIES	81
APPENDIX 3.1: APPROVAL FOR RESEARCH FROM HREC, OPEN UNIVERSITY	81
APPENDIX 3.2: PLANNED OUTLINE OF SEMI-STRUCTURED TEACHER-EDUCATOR'S INTERVIEW	82
APPENDIX 3.3: PLANNED OUTLINE OF SEMI-STRUCTURED PRINCIPAL'S INTERVIEW	83
APPENDIX 3.4: SKETCH AND OUTLINE OF STORY FOR FOCUS GROUP DISCUSSION	84
APPENDIX 4.1: RUBRIC TOOL FORMAT TO QUALITATIVELY VIEW A TEACHER'S PRACTICE	86
APPENDIX 4.2: RUBRIC TABLE WITH QUOTES AND DESCRIPTIONS FROM TRANSCRIPTIONS	91
APPENDIX 4.3: ACTIVITY THEORY INFLUENCED DIAGRAM WITH QUOTES AND DESCRIPTIONS FROM TRANSCRIPTIONS	105

LIST OF FIGURES AND TABLES

FIGURE 2.1A LCE, TECHNIQUE, CLASSROOM RELATIONSHIPS, LEARNER MOTIVATIONS AND KNOWLEDGE CONTINUUMS..	22
FIGURE 2.1B TWO CENTRAL CONTINUUM	22
FIGURE 2.2: TEACHER-TRAINING AS A SYSTEM	25
FIGURE 3.1: PROCESS FOLLOWED FOR PREPARING DATA FOR ANALYSIS BY CODING AND THEMATIC ANALYSIS.....	36
FIGURE 4.1: MODEL FOR INFLUENCES ON LEARNER-CENTRED TEACHING IN A DIET	53
FIGURE 5.1: THE TIMELINE SHOWING KEY EVENTS BEFORE IMPLEMENTING THE NEW POLICY AT THE DIET	61
TABLE 2.1: MAJOR SHIFTS FROM TCE TO LCE	21
TABLE 2.2: COMPARISON OF DOMINANT PRACTICE AND PROPOSED NEW PROCESS OF TEACHER EDUCATION	21
TABLE 2.3: MINIMUM STANDARDS FOR LEARNER-CENTRED EDUCATION	23
TABLE 3.1: THE DIFFERENT DATA COLLECTION METHODS, THE PARTICIPANTS AND PURPOSE.....	33
TABLE 4.1: THEMES, CODES AND SUB-CODES USED TO DESCRIBE THE DATA COLLECTED	37
TABLE 3.2: FORMAT FOR TRANSCRIPTION	37
TABLE 3.3: EXTRACT FROM A RUBRIC TOOL FORMAT CREATED TO REPRESENT A TEACHER-EDUCATOR’S PRACTICE	38
TABLE 4.2A-C: VIEW OF A TE1’S PRACTICE IN A RUBRIC TOOL DEVELOPED FROM COLLATED DATA	48

LIST OF ACRONYMS

CE	: Child-centred Education
DIET	: District Institute for Education and Training
EFA	: Education for All
HREC	: Human Research Ethics Committee
HSEP	: Hoshangabad Science Education Project
JRM, U.P	: Joint Review Mission, Uttar Pradesh
LCE	: Learner-Centred Education
LCTE	: Learner-Centred Teacher Education
PBE	: Problem-Based Education
MHRD	: Ministry of Human Resources and Development
NCFTE (2009)	: National Curriculum for Teacher Education, 2009
NCF (2005)	: National Curriculum Framework, 2005
NPE	: National Policy for Education
RTE	: Right to Education
SCE	: Student-Centred Education
SCERT	: State Council Educational Research and Training
TCE	: Teacher-Centred Education

1 AIMS and OBJECTIVES

1.1 INDIA'S CHALLENGES IN EDUCATION

When India resolved to provide education to all 6-14 year olds through the 2009 Right to Education Act, the urgent task was to tackle four major problems: access, retention, equity and quality (Raina, 2011). Since then, India has improved access by providing 95% of the rural population living in 826,000 habitations with a primary school within one kilometre. India has also improved school facilities (MHRD, 2000). Both of these improvements are believed to have resulted in achieving 96% enrolment of 6-14 year olds for the last five years (ASER, 2013). The second problem of poor retention still exists; 60% of children who enroll do not complete Grade 5 on average (MHRD, 2012) and no more than 40% succeed in entering Grade 9 (Lewin, 2011). Children drop out of school for many reasons, two of the main ones being lack of quality education and social and gender equity in classrooms. These are complex, linked, systemic issues (Raina, 2011) and difficult to tackle.

Policy, institutions and teachers together play a critical role in defining quality in education. The Dakar Framework for Action listed quality among one of its six goals. The National Plan of Action for Education for All (MHRD, 2000) focused on 'bridging social and gender gaps in access to schooling and revitalizing teaching-learning processes' (Batra, 2009:2) bringing equity and different pedagogic discussions into education quality.

Teachers hold the key to the quality of education at the transactional level in a classroom, promoting learning processes so learning outcomes are achieved, especially with weaker students (Batra, 2009; Mincu, 2013). Enhancing teacher quality is intrinsically linked to the quality of teacher training programmes (Mincu, 2013).

1.2 NEED FOR LEARNER-CENTRED EDUCATION (LCE)

In the National Policy of Education (NPE, 1992), India adopted Minimum Levels of Learning (MLL) with the hope to improve the quality in education. This was influenced by behaviouristic thinking in that learning has a particular sequence and can be observed, predicted, measured and so planned and controlled. Learning at the primary level was planned, sequenced and monitored through achievement tests. This organisation of learning, in the context of developing India, offered hope for a high degree of universalisation, in-built quality in the process, equity, reliability and control. It is this faith in quality being linked to measurable learning outcomes that is visible today across the country's schools (Sarangpani, 2010). But this method of delivery leaves teacher authority

intact, takes away both teacher and student agency and creativity (Raina, 2011; Sheshagiri, 2013) and does not resonate with more contemporary interpretations of quality that depend on greater teacher-learner interactions with increased localisation. In the diversity of Indian villages and districts, this system has 'negate(d) the cultural and social location of the child, and also its historical knowledge system, thereby suppressing its identity' (Raina, 2011:10). This has taken an extreme social and human form in India's schools. For many children from low castes, tribal groups, minorities, and first generation learners, school is reported to stand for authority, fear and indifference to learning. They are considered a burden in schools and subjected to humiliation and physical punishments usually by teachers from higher castes (Raina, 2011). Added to these are the often irrelevant content and subsequent boredom. For many children from illiterate families there can be a lack of family support because the families do not understand the pressures faced by the child at school. 'Social and cultural discrimination is therefore a major factor in the drop out phenomenon of Indian schools' (Raina, 2011:12-13). This brings pedagogy, content, process of education, nature of institutions and diversity in Indian classrooms to the heart of the quality debate.

Consideration of these factors led policy makers in India, in line with international policy shifts in education funding, to select approaches to learning inspired by constructive thinkers like Vygotsky. They adopted a learner-centred approach that accommodates the cultural and linguistic roots of the child, helping the learner to actively construct and assimilate knowledge into a larger knowledge system, rather than replace and substitute it by banking education where the students passively memorise the information the teacher provides (Hardman et al., 2008; Raina, 2011). For thirty years, from 1972-2002 many socially challenging issues were tackled in sixteen rural government schools in Madhya Pradesh known as the Hoshangabad Science Education Programme (Mukund, 1988). Its principles formed the basis of the National Curriculum Framework 2005 (NCF, 2005; Raina, 2011).

1.3 POLICY CHANGES IN INDIA

After countrywide academic debate, the NCF (2005) adopted a constructivist LCE approach for school education. The NCF (2009) recognises 'the child as a natural learner, and knowledge as an outcome of the child's own activity' (NCF, 2005:12) and recommends the role of a teacher to be 'a facilitator who encourages learners to reflect, analyse and interpret in the process of knowledge construction' (NCF, 2005:19). The NCF (2005) re-prioritised teaching to cover five tenets: connect knowledge to life outside school; shift

learning away from rote methods; enrich the curriculum beyond textbooks; introduce flexible examinations integrated with classroom learning; and nurture identity influenced by democratic concerns (NCF, 2005).

Teacher and school education are synergetic. Research shows that ‘enhancing teacher quality is intrinsically linked to the quality of the initial and continuing teacher-education programs and such enhancement is vital if disadvantaged students are to succeed and disadvantaged schools are to progress’ (Mincu, 2013:2). This led to the creation of a ground-breaking National Curriculum Framework for Teacher Education (2009) in which the role of a teacher-educator was recommended to be changed from an authoritative behaviorist mode to a more facilitative, process-based, constructivist, learner-centred mode (p. 52). Through such shifts in teacher education, it was intended that Indian teachers would be trained to use learner-centred methods in schools (NCF, 2005).

1.4 TEACHER EDUCATION AT DISTRICT INSTITUTES FOR EDUCATION AND TRAINING (DIETs)

Anticipating the increase in number of teachers, in 1986, the National Education Policy, in pursuance of education for all, sanctioned the creation of 571 District Institutes of Education and Training (DIETs) at the district level to train primary school teachers.

The important and enormous task of training primary school teachers was entrusted to teacher-educators at DIET centres. The changes in teacher-education pedagogy detailed in the NCFTE (2009) became the responsibility of the teacher-educators.

The NCFTE (2009) emphasises the importance of professional competence in teacher-educators to enable them to achieve intended objectives and quality pedagogical inputs. The little research about DIETs and teacher-educators paints a disquieting picture and points to an urgent need of a system overhaul, appropriate recruitment and development of teacher-educators. Most DIETs are dysfunctional. Some DIETs have just 20% staff capacity (Azim Premji Foundation, 2010:3; MHRD, 2012a:4). The secondary school teachers who are recruited often without choice to become teacher-educators face a huge career change when they are posted to a DIET. Few have the relevant experience and are not provided with appropriate professional development opportunities (Dyer, 2004).

1.5 CRISIS IN TEACHER-EDUCATION

Ten years after Dyer’s research and three years after the introduction of the RTE and NCFTE (2009) there has been little evidence of improvement in teacher-educator quality or help to

experience or practice learner-centredness. Yet, the teacher-educators at the 529 functioning DIETs are responsible for training student-teachers to become more learner-centred, as recommended by the NCFTE (2009). Literature suggests that shifting to learner-centredness, from the prevalent teacher-led education practice calls for new ways of teaching (Mtika and Gates, 2010). To be able to do this, the teacher-educator's own stance towards knowledge, student-teacher relationships, conception of learner capability and teaching abilities has to change. What are the lessons from research about LCE and its implementation? How ready are the teacher-educators and the DIETs to deliver? What support will they need for successful implementation in this gigantic task? Research literature about the Indian (and global) teacher-educators' classrooms, beliefs, interpretations, practice and development is scarce. It is an under-researched area (O'Sullivan, 2010).

This small-scale case study aims to contribute to this area by understanding how a teacher-educator's conception and practice relate to learner-centredness in her classroom and how she is supported to do this at a DIET.

1.6 RESEARCH QUESTIONS

The overarching research question in this study is:

How learner-centred is a teacher-educator at a DIET?

Leading from this, the three sub-research questions are:

- What are the teacher-educator's conceptions of good teaching?
- How learner-centred is the teacher-educator's practice?
- How does the DIET influence the teacher-educator's learner-centredness?

2 LITERATURE REVIEW

In this chapter, the literature reviewed will, taking the viewpoint of teacher-educators, introduce LCE and related education terms, describe the promise of LCE, identify considerations for the development of learner-centred teacher-educators and describe the evolving recommended roles for them. The review will explore ways to view degrees of learner-centredness. It will highlight the implementation challenges to learner-centred education, and finally touch on the advantages offered by the Activity Theory framework to better communicate the influence of the DIET on learner-centred activity.

2.1 LEARNER-CENTRED EDUCATION AND RELATED TERMS

LCE is considered a remedy for several social problems in the global North and South. According to Schweisfurth (2013), who has written widely on learner-centredness, cognitive psychologists claim that ‘all learners need to engage with, and co-construct knowledge in order to experience deep and meaningful learning.’ This social-constructivist interpretation of learning forms the core of LCE. Schweisfurth (2013:20) defines it as ‘a pedagogical approach which gives learners and demands from them, a relatively high level of active control over the content and process of learning. What is learnt, and how, are therefore shaped by learners’ needs, capacities and interests.’ This definition does not account for the context and resources of learning, nor does it qualify deep learning, a cognitive aim for LCE.

O’Sullivan (2004:599) recommends a change in the term ‘learner-centred’ to ‘learning-centred’ education and defines this as the education which ‘ensures effective learning using whatever activities, techniques and skills best bring this about within the realities in which the teacher works.’ Vavrus (2009:310) recommends ‘contingent constructivism’ in which constructivist pedagogy is contingent on a number of contextual factors and recognises ‘a broader range of pedagogical alternatives’. Johnson et al. (2000, cited in Sriprakash, 2010:298) emphasises ‘understanding pedagogic change through small steps to recognise the adjustments teachers can make within the systems in which they find themselves, whilst not denying the need for wider change’. In Indian schools, these contextual and contingent aspects have begun to be researched and are valuable in providing understanding of managing pedagogic change (Sarangpani, 2010).

Schweisfurth (2011) evaluated 72 articles that covered various aspects of LCE published over 30 years. Many of the articles Schweisfurth discussed described LCE but did not necessarily employ the term ‘learner-centred’. Often, different but related terms were used

to describe techniques and outcomes that are essentially learner-centred. These terms are child-centred, student-centred, problem-solving, progressive education, enquiry-based, activity-based learning (Ravi and Rao, 1994 cited in O'Sullivan, 2004), Joyful learning or *Nali Kali* (Sriprakash, 2010) and more. Though all these are used interchangeably, they either have slightly different meanings or epistemological origins, or target learners.

One of the most enduring and most often used term in children's primary education is 'child-centred education (CE). Though both CE and LCE have featured in Indian policy documents, CE is better known than LCE, in India. CE and LCE are conceptual frameworks with roots in behaviourism and constructivism respectively (Harmelen, 1998:2) but both share concerns for freedom, learner initiative, and learning through discovery. It is often assumed that LCE applied to a child is CE. In reality, CE preceded LCE. Against the behaviourist tradition, learning outcomes based on Bloom's levels and hierarchy of skills did not map to a child's learning development. Instead CE identifies different aims and objectives better suited for children's learning needs described by various educationists like Dewey, Montessori, Erikson and Kolbe and others. The framework of education remains in the behaviourist tradition in being learning outcome and objective based (Harmelen, 1998, Schweisfurth, 2012) but treats the child as a learner with unique learning needs different from adults (Harmelan, 1998).

Two other popularly used terms in higher education are 'student-centred' (SCE) and 'problem based' (PBE) education. SCE is essentially LCE used with adults (Jordan et al., 2013) where active learners are responsible for their learning and supported to be so. PBE uses 'collaborative, research-based investigations into real-life problems' (Schweisfurth, 2013:9).

2.2 THE PROMISE OF LCE Vs. TEACHER-CENTRED EDUCATION (TCE)

LCE has gained extensive support from donor agencies, aid programmes, and human rights groups because it is seen to be inclusive, to socially promote individual aspirations, develop independence and critical thinking ultimately promoting democratic values contributing to national capacity (Schweisfurth, 2011). According to Vavrus (2009) International development organisations privilege LCE because they view teacher-education improvement as economically essential for developing countries in times where knowledge is capital. A political interpretation according to Tabulawa (2003) and others is that the aims of education in developing countries or colonies were focused on building skills, attitude and knowledge which were necessary for economic development. Now additionally neo-

liberal democracy is also promoted. For this, LCE emerges as the natural choice for inculcating liberal democratic values.

National education across the world has been dominated by behaviourism and constructivism. Over the past two decades, developing countries have looked for an alternative that counters the drawbacks of teacher-centred education (TCE) associated with behaviourist legacies which are associated with fixed knowledge, dominant teachers, passive learners, a banking model (Schweisfurth, 2013), rote learning, fixed curricula, rewards, punishments and final examinations; in contrast, constructivism is essentially learner-centred, where learners learn through active construction and assimilation of knowledge, accept knowledge as multi-faceted, curricula are competency based, and continuous assessment takes place instead of final examinations (Chisholm and Leyendecker, 2008).

2.3 THE ROLES AND EDUCATION FOR TEACHER-EDUCATORS

It is widely accepted that developing countries and their donors (O'Sullivan, 2010) that trained teachers are critical to ensure quality primary education. However, the knowledge, experience and development needed for teacher-educators' roles is less understood. This under-researched area has only recently begun to emerge in the literature (NCFTE, 2009; O'Sullivan, 2010).

Murray and Mane (2005) report that the transition from teacher to teacher-educator is very stressful due to the uncertainty of the new professional role and inadequate knowledge causing a crisis of confidence. Most teacher-educators rely on their own experience to train and engage student-teachers and realise that they need new skills. This points to the need for customised teacher-educator development programmes. Yet literature reports mixed results from regular training programmes with reflective practices (McCabe and O'Connor, 2013). NCFTE (2009) ascribes this to a mismatch of teacher-educator qualifications and their job requirements, structural gaps and inadequate design of post-graduate programmes in education (NCFTE, 2009) in India.

2.4 PRACTICE GUIDELINES FOR TEACHER-EDUCATORS

Teacher-educators teach student-teachers who are adult learners to teach school children (O'Sullivan, 2010). Learning in adults and children follows very different principles of pedagogy and andragogy which teacher-educators need to be familiar with. Adult learning is individually oriented and life-centred (Knowles, 1980 cited in Tallent, 2012) as opposed to

children's learning which is more subject-centred and starts with social rather than personal knowledge construction (Vygotsky, 1978 cited in Andrew, 2007:160).

Adult learners learn best when they know 'why' before they know 'what' they learn. They construct their own mental models to make sense of the world, refining these through learning. Life improvement is an intrinsic motivator to learn. These andragogy principles have implications for a teacher-educators' practice when planning LCE strategies to ensure effective learning (Tallent, 2012).

In LCE, the teacher-educator takes on a facilitator role instead of a controlling authoritative one. Both teacher-educator and student-teacher have greater responsibility for the active construction of knowledge and the proactive management of learning (McCabe and O'Connor, 2013). Student-teachers assume greater ownership of their learning while the teacher-educators carefully and creatively plan their teaching, with user understanding to meet student-teacher expectations and motivate them. This is done by fostering open, interactive realistic environments where peer interaction, group work, interactive lecturing, problem-solving with case studies, projects, seminars, research and hands-on activity can be carried out without fear of authority, marks and assessment. Teacher-educators are advised to design activities and assignments that help students to clear conceptual and subject understanding and also think, reflect, develop, evaluate and modify their conceptual frameworks (McCabe and O'Connor, 2013). With different forms of questioning, a learner-centred teacher-educator should be able to understand students' thinking and adjust instruction accordingly (Andrew, 2007; NCFTE, 2009).

Research shows that deep learning in LCE is influenced, among other things, by the teacher-educator's orientation, behaviour, clarity of purpose, assessment, and feedback (McCabe and O'Connor, 2013). Engaging with theory and field work through practicum courses when student-teachers engage with children, schools and their contexts also results in deep, active learning (NCFTE, 2009).

These teacher practices have been encapsulated in curriculum documents for school and teacher-training institutes. The NCF (2009) describes a process of learner-centred and child-friendly education with major shifts from TCE to LCE in their classrooms in Table 2.1.

From	To
Teacher, centric stable designs	Learner centric, flexible process
Teacher direction and decisions	Learner autonomy
Teacher guidance and monitoring	Facilitates, supports and encourages learning
Passive reception in learning	Active participation in learning
Learning within the four walls of a classroom	Learning in the wider social context
Knowledge is a 'given' and 'fixed'	Knowledge as it evolves and is created
Disciplinary focus	Multidisciplinary, educational focus
Linear exposure	Multiple and divergent exposure
Appraisal, short and few	Multifarious and continuous

Table 2.1: Major shifts from TCE to LCE (Source: NCF, 2005:110)

Following this, the NCFTE (2009) recommends a transformation of teacher-educator practices from the current dominant practice to a new process based practice in Table 2.2. Neither the NCF (2005) nor NCFTE (2009) explicitly use the term LCE but strongly recommend a pedagogical shift from TCE to LCE in the descriptors. Table 2.3 which outlines intended shifts in teacher-educator practices in India has been used in this study to develop a tool to qualitatively gauge a teacher-educator's learner-centredness.

	Dominant (Current) Practice	Proposed process for teacher education
1	Focus on psychological aspects of learners without adequate engagement with contexts. Engagement with generalised theories of children and learning.	Understanding the social, cultural and political contexts in which learners grow and develop. Engagement with learners in real life situations along with theoretical enquiry.
2	Theory as a "given" to be applied in the classroom.	Conceptual knowledge generated, based on (learner) experience, observations and theoretical engagement.
3	Knowledge treated as external to the learner and something to be acquired.	Knowledge generated in the shared context of teaching, learning, personal and social experiences through critical enquiry.
4	Teacher-educators instruct and give structured assignments to be submitted by individual students. Training schedule packed by teacher-directed activities. Little opportunity for reflection and self-study.	Teacher-educators evoke responses from students to engage them with deeper discussions and reflection. Students encouraged to identify and articulate issues for self-study and critical enquiry. Students maintain reflective journals on their observations, reflections, including conflicts.
5	Students work individually on assignments, in-house tests, field work and practice teaching.	Students encouraged to work in teams undertaking classroom and learners' observations, interaction and projects across diverse courses. Group presentations encouraged.
6	No "space" to address students' assumptions about social realities, the learner and the process of learning.	Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse.
7	No "space" to examine students' conceptions of subject-knowledge.	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge.
8	Practice teaching of isolated lessons, planned in standardised formats with little or no reflection on the practice of teaching.	School Internship – students teach within flexible formats, larger frames of units of study, concept web-charts and maintain a reflective journal. <small>*The terms in parenthesis added by the author</small>
9	Short training schedule after general education.	Sustained engagement of long duration professional education integrated with education in liberal sciences, arts and humanities.

Table 2.2: Comparison of dominant practice and proposed new process of teacher education (Source: NCFTE 2010: 52)

What makes LCE difficult to implement is that the changes teacher-educators make in their conception of knowledge, change in relationships between student-teachers and in their practice happen slowly and are not immediately observable or measurable.

2.5 VIEWING LEARNER-CENTRED EDUCATION QUALITATIVELY IN CONTINUUMS

The most interactive and participative techniques can become formulaic rather than learner-centred when they are legislated in a teacher-training institute as a standard to be followed by all teacher-educators (Cochran-Smith, 2004). e.g. Group activity can be completely controlled by the teacher-educator and applied as a formula without deep learning. Alternately, the teacher-led technique of lecturing can be interspersed with questions that infuse critical-thinking skills in students and so become more active and learner-centred (Vavrus, 2009). This lack of clear markers makes measuring learner-centredness in practice difficult.

The learner-centredness of a teacher-educator practice is difficult to quantify because LCE is usually described in comparison to TCE: both have the same descriptors but occupy different ends of the spectrum. So, a teacher can be described to be learner-centred on a continuum during a learning event by being described to be less learner-centred and so more teacher-centred (Gribble 1998 cited in Schweisfurth, 2013). Schweisfurth has tried to plot aspects of learner-centredness along a continuum, from less to more (Schweisfurth, 2013) as shown in Figures 2.1 a-b.

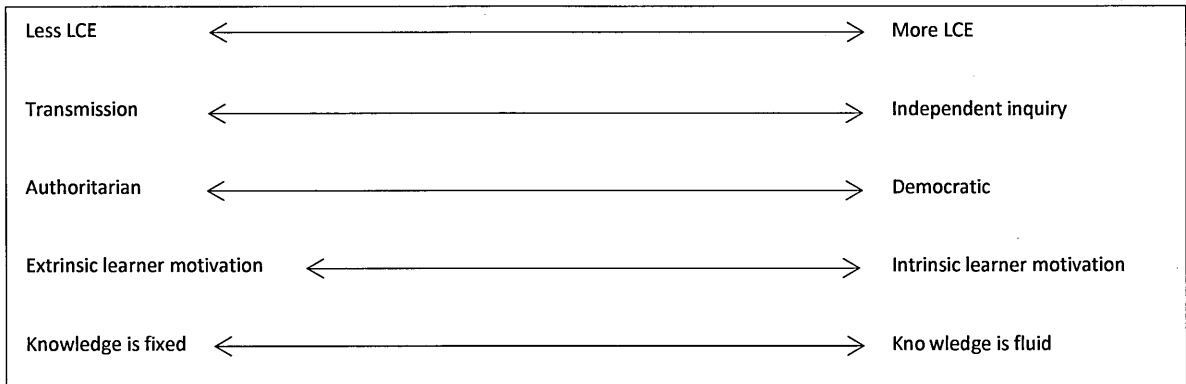


Figure 2.1a LCE, technique, classroom relationships, learner motivations and knowledge as a continuum

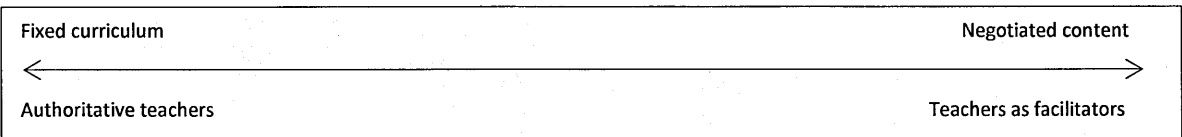


Figure 2.1b Two central continuum (Figure 2.1 adapted from Schweisfurth, 2012:11)

Considering LCE along a continuum, student-teacher relationships either invite complete freedom or complete authoritarianism at either end of the spectrum (Figure2.1a). Here the teacher-educator’s management of the class is crucial. In a learner-centred classroom, both teacher-educators and student-teachers need to set down rules together, own and follow them and learn to negotiate when needed. Without this, power can be abused, losing the

opportunity to learn. Whether a teacher-educator perceives knowledge, as fixed or fluid, also decides the interaction in the classroom (Figure 2.1a). In LCE, the teacher is not the source of all knowledge because learning starts from the learner and not the teacher. Schweisfurth (2013) concludes this model along continua when she combines techniques with motivation and epistemology and arrives at Figure 2.1b. This means that every classroom would be learner-centred to a degree along each continuum showing that learner-centredness tends to change in different contexts and circumstances. Schweisfurth (2013) distilled the minimum conditions to identify LCE in Table 2.3.

Minimum standards for learner-centred education
Learning is engaging to pupils, motivating them to learn
Atmosphere and conduct reflect mutual respect between teachers and pupils. Conduct such as punishment and the nature of relationships do not violate rights.
Curriculum is relevant to learner's lives and perceived future needs, in a language accessible to them (mother tongue except where practically impossible)
Curriculum is based on skills and attitude outcomes as well as content. These should include skills of critical and creative thinking.
Learning challenges build on learner's existing knowledge
Dialogue is used (not only for transmission) in teaching and learning
Assessment follows up these principles by testing skills and by allowing for individual differences. It is not purely content driven or success based only on rote learning.

Table 2.3: Minimum standards for learner-centred education (Schweisfurth, 2013:146)

Schweisfurth’s minimum standards of learner-centredness seem more oriented towards LCE for school children, lacking the emphasis on the four fundamental features espoused by McCabe and O’Connor (2014) for student-centred learning for adults: ‘Active responsibility for learning, proactive management of learning experience, independent knowledge construction and teachers as facilitators’ (p.351).

While Schweisfurth’s discussion makes clear different components, practices and support registered for LCE around the globe, it does not detail aspects of individual practices. The same teacher-educator can be more or less learner-centred and use inquiry based, learner-centred activities as well as more formalistic methods depending on the subject and circumstances they teach.

The NCFTE (2009,Table 2.2) provides a culturally contextualised set of contrasts between LCE and TCE. Schweisfurth provides a culturally neutral standardisation of LCE and takes the contrasts further to suggest a continuum between the two practices. Both these concepts have been used in to create a rubric tool to assess the degree of learner-centredness of a teacher-educator (Appendix 4.1).

2.6 CHALLENGES OF LCE IMPLEMENTATION

LCE is questioned for the complex challenges in its implementation (Thompson, 2013; Schweisfurth, 2011; O'Sullivan, 2004; Vavrus, 2009). While policy planners and evaluators often blame teacher-educators and teachers for LCE implementation failure, research shows all stakeholders have a part to play (Mtika and Gates, 2010). Policy and implementation plans regularly deny the magnitude of the task at hand. The political goal of being seen to achieve implementation increases the pace to a speed that practice cannot meet (Schweisfurth, 2011).

As access increases and enrolments grow (Vavrus, 2009; Batra, 2009) the need for trained teachers has gone up to about 1.3 million in the twelfth five-year plan for primary schools in India (MHRD, 2012). The lack of teachers contributes to overcrowded classrooms in schools with teacher-pupil ratios touching 1:61 in rural Uttar Pradesh, India (NCERT, 2005 cited in Batra, 2009). In reaction to this lacuna, in India and other developing countries, the number of student-teachers has gone up from 50 per classroom to 200 in teacher-training institutes (DIET, Lucknow, 2014; Mtika and Gates, 2010).

The large class-sizes seriously effects teaching-learning quality. Without adequate LCE training or understanding, teacher-educators resort to conventional TCE (Lewin, 2000). Further, when LCE teacher-trainings do take place, LCE learning is usually abandoned in the face of TCE led institutional practices like centralised, fixed curricula, examinations, and inspections (Schweisfurth, 2011).

The cultural and social contexts factors differ greatly between countries resulting in a widely varied implementation of LCE (Vavrus, 2009; Tabulawa, 1997). LCE calls for major shifts in student-teacher power relations and teacher-educator attitudes that are shaped by their own cultural contexts and educational experiences (Schweisfurth, 2011).

In India, teacher-educators are 'ex-upper secondary teachers, who hold higher degrees but have no relevant practitioner experience' (Dyer, 2004: ix). This results in them being reluctant, non-understanding practitioners adopting a 'don't do as I do, do as I say' pedagogy' (Mtika and Gates 2010:400), often using one way lectures to teach their student-teachers LCE resulting in student-teachers not conversant with LCE practically.

2.7 APPLYING ACTIVITY THEORY

Constructivism is a learning theory based on which constructivist practice for teaching is being developed in different countries. Translating a theory of learning into one of teaching

and practice is known to be extremely difficult (Richardson, 2003). The same holds for converting learner-centredness into practice. Research shows that many contradictions show up in a system changing from TCE to LCE (Vavrus, 2009). To make the change to constructivism from TCE to LCE, the leadership, faculty, student-teachers and different staff at the DIET and SCERT need to develop fresh constructs. Tracking connections of how different parts of the teacher-education institute influence a single teacher-educator's learner centred practice seemed a huge and difficult task through descriptive research. An appropriate theoretical lens could bring disparate elements together to explain the situation and provide a relevant perspective to the research.

Theoretical frameworks emerge from specific theories about human existence such as the functioning of organizations and are applied to specific environments (Trentu.ca, 2014). A framework is not essential to the research except that it provides a special perspective which helps to focus the research, integrate different data to provide a holistic picture or direct the analysis and offer insights, for example: social, economic, political, cultural or feminist or any other (Trentu.ca, 2014).

Cultural-historical Activity Theory (CHAT), also referred to as Activity Theory (AT), socio-cultural theory and social constructivism (Yamagata-Lynch and Haudenschield, 2009) was initiated in the 1920s and 30s by Vygotsky and Leont'ev (1978, cited in Engeström, 2000:961) and later expanded by Engeström (Roth and Lee, 2007).

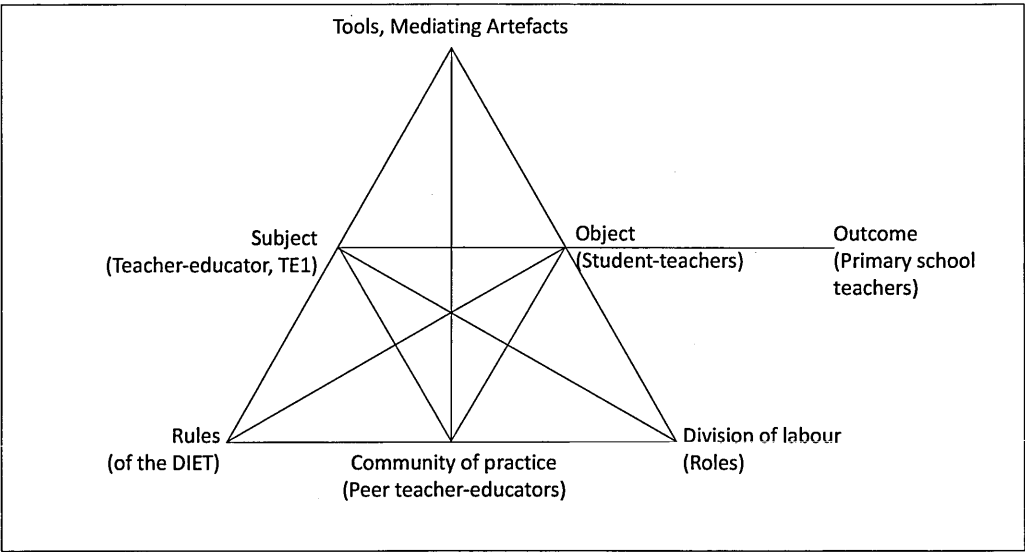


Figure 2.2: Teacher-training as a system (adapted from Engeström, 2000:962; 2007:377 and Conceição et al, 2013)

CHAT is a theoretical framework used to analyse and understand human activities individually and socially, considering the context in which the activities are carried out. It is frequently used by educational researchers in higher and now adult education (Conceição

et al, 2013). CHAT views the education system as a complex entity where relationships between an individual or subject, their communities of practice and the objects of their activities exist together and interact. The subject or participant is motivated to work towards achieving a goal with the object in the activity system. The subject brings a personal history and experiences to the activity system. The object can be material or psychological or even a participant in the activity, the transformation of which can be the goal of the activity. The subject utilizes a variety of tools and mediating artefacts (Conceição et al, 2013) in the activity to transform the object into an outcome. Material tools control physical processes; psychological tools control behavioural and cognitive processes of the individual, transforming psychological processes to higher functions. The outcome can encourage or stop the subject from participating in the activity (Yamagata-Lynch and Haudenschild, 2009). Each organization has its rules, and develops its own culture and enactment. Conceição et al (2013) found that outcomes are impacted by the interactions between systems, available resources, expectations and perceptions. The community of practice is the group or organisation of which the subject is a member. The division of labour is the responsibility shared in the activity by the community.

In this research, the activity system is represented by the activity of teaching in a learner-centred way in the system at the DIET, the subject of the research; the teacher-educator's goal is to create a learner-centred student-teacher, the object of the research. The final outcome of the activity would be a primary school teacher who uses LCE. The peer teacher-educators, officials at the DIET and SCERT all form the community of practice at the DIET which runs with its own set of rules and history.

In this research the Activity Theory model has been heuristically applied to explain the situation in the DIET.

2.8 CONCLUSION

The literature provided the background to learner-centred education, clarifying broad, often contentious issues which make it particularly difficult to implement. Some of these are generic to all educational systems in India and developing countries like lack of schools, large overcrowded classrooms, and most important, lack of trained teachers. Some challenges are peculiar to learner-centred education. These are less visible like the epistemology of LCE, the specialised training it requires in teachers towards greater reflectiveness, openness, and creativity. Building equality, trust and mutual respect between teacher-educators and student-teachers is crucial. Particular to this research were

ideas of how to assess learner-centredness and depict the complex inter-relationships involved.

Learning from the literature review clarified the issues, theories and practices related to a teacher-educators's learner-centredness. This knowledge has contributed to the research design and development of data collection tools which will be taken up in the next chapter.

3 RESEARCH DESIGN, DATA COLLECTION AND ANALYSIS

This chapter describes the methodological approach of the research in four parts: the methodological framework; the data collection, planning and implementation; the methods and processes employed for data analysis and finally, reflections on the methodology.

3.1 METHODOLOGICAL FRAMEWORK FOR QUALITATIVE RESEARCH

3.1.1 Methodology

A qualitative, exploratory approach was adopted for this research. It started with unravelling and clarifying the complexities of learner-centredness (Hammersley, 2009).

The research sought to understand the ‘complex inner perspectives of the people involved, to understand and document their points of view... produce much better explanations for their behaviour ...than the misconceptions generated by official accounts...and widespread myths’ (Hammersley, 2009:37). This research study set out to reconstruct, from relatively unstructured data, the phenomenon of teaching in a DIET.

I considered two research approaches for data collection: ethnography and case-study. An ethnographic study was suitable since the research aimed to develop a holistic picture around the everyday life of a teacher-educator working at a DIET. However, project constraints of time and size did not permit this. Therefore a case study method was considered. I could construct a case study based on an ‘insider view’ of a teacher-educator in the complex but natural environment of a DIET. In case studies, participants can contribute to the research as respondents, informants or by expressing themselves, gaining a ‘voice’ in the research. In this study the participants would take on all three roles. Within the case-study it was possible to follow an ethnographically influenced approach (Wolcott, 1988 cited in Ely et al., 1991) and complete the research within the stipulated time (Denscombe, 2003).

As a first time researcher I had difficulty in scoping the case study because learner-centredness seemed to be influenced by both the teacher-educator’s own conceptions of teaching and the conditions at a DIET. ‘A case may be an individual, an event, an institution or a whole national society’ (Gomm et al, 2000:3). Since very little is known about the teacher-educator’s pedagogy and practice in a DIET classroom, I chose to concentrate the research around the teacher-educator. The situation became clearer when I viewed it

through the Activity Theory lens which helped me to heuristically understand how the teacher-educator's classroom practice was influenced by the context of the DIET.

3.1.2 The site for data collection

The first consideration for site selection was a functioning DIET with teacher-educators and student-teachers to enable a study of learner-centredness. A second consideration was a DIET which used Hindi over other regional languages as the language for teaching. I knew Hindi.¹

3.1.3 Access for field work through a gatekeeper

The choice of the research location, gatekeeper and access are linked. Having decided on the kind of location, I needed to identify a gatekeeper to help me gain access for field work (Ely et al., 1991). My supervisor knew people in functioning DIETs in three Hindi -speaking states. Luckily, during an opportune visit to India, I was able to meet the principal of one of the three DIETs. In my conversation with her, I strived to persuade her that I was 'sympathetic to and understanding of the goals of the setting and... (would not) ...disrupt the basic routine' (Ely et al., 1991:20). I discussed my project with her and secured her approval to research. Of the eighteen teacher-educators I met on the first day, only two were male. I think my being a woman also helped me in getting the principal's approval. Not only that, I found by securing her approval, because of her authoritative position, I was also perceived by people at the DIET as a good researcher. This facilitated both contact and trust between the participants and me (Denscombe, 2003). In India, people are very hierarchy conscious and gaining the good opinion of figures in authority is important socially. This made me conscious, as a researcher, of the inputs I received from participants. I tried to ensure that power relations were kept neutral or in their favour (Ely et al., 1991), for example, I did not make it public that a few teacher-educators did not participate in the research after agreeing to, and being scheduled to do so.

3.1.4 Identifying the participants and planning the schedule

Of the participants in the research, one teacher-educator was the main subject of the research (TE1), four teacher-educators were TE1's peers (TE2, TE3, TE4, TE5) and the last was the principal of the DIET.

¹ There are eight Hindi-speaking states in India covering 180,000,000 people (Agnihotri, 2010).

The key teacher-educator was selected through opportunity sampling. Since I was not familiar with the working and rules at the DIET, before my data collection visit to India, I wrote to the principal to choose the participants for the research. I expressed my preference for TE1 to be one who also taught general pedagogy. The principal respected this and identified a teacher-educator based on her 'wide experience in handling teacher-education.' This meant that the selected teacher-educator was considered one of the best teacher-educators at the DIET. The findings for this study will be both enriched and limited by this constraint of an atypical teacher-educator at an atypical DIET.

Similarly, participants for the focus group discussion were appointed for me. A day before the discussion, I found none of the appointed TEs were available for it. Here again I employed random opportunity sampling by requesting four teacher-educators, from those present in the faculty room, to participate in the discussion.

3.1.5 Generalizability

This research is an in depth case study of the learner-centredness about a particular teacher-educator and does not set out to offer broad generalizable findings (Stake, 1995). However, the learning from the natural situation of the teacher-educator researched can be used to shape other similar research studies. The process followed in this research and interpretations can contribute to design studies about other teacher-educators in the same and other DIETS. Guba and Lincoln call this concept 'fittingness' which emphasizes 'the degree to which the situation studied matches other situations in which one is interested' (in Hammersley, pp 186).

3.1.6 Ethical considerations

The larger ethical aim of this research project is to understand how to empower individuals to improve the processes of education with the knowledge revealed through research.

Every university in the UK has a committee that approves all research projects for the ethical considerations before commencing research. Protection of human rights and data has been legislated in the UK through various guidelines. The guidelines followed in this project were the BERA Ethical Guidelines for Educational Research in addition to The Ethics Principles for Research involving Human Participants at the Open University.

Approval for the research was obtained by submitting a preliminary project proposal along with an information leaflet, consent forms, and the data collection tools developed for the research to the University ethics committee. This process was very useful as it forced me

to think systematically about my research and the well-being of the participants, before data collection.

During the research, care was also taken to avoid causing mental, social or professional harm to the participants by ensuring anonymity in the report, and respecting their wishes to withdraw from the research when they wanted, addressing them with respect, valuing their opinions during discussions and interviews and treating them as equals (The Open University, 2014).

Information about the research was provided to the participants through the information leaflet. Their consent was sought on the consent form asking for their permission to record, archive and publish their involvement, anonymously.

Consent was not always a simple affair. On one occasion a teacher-educator gave written consent to be video recorded during the classroom observation but the next morning, when confronted with a video camera on a tripod in her classroom, she withdrew this permission. She had no problem with the relative anonymity assured by an audio-recording but balked at the intrusive 'publicness' of a video recording. 'Consent must occur without duress or pressure' (Sheyvens and Storey, 2001:142), and this extends to the participant being free to withdraw consent. The teacher-educator withdrew from the research. Other ethical considerations are described during the research, as they took place.

3.2 DATA SOURCES: PLANNING AND COLLECTION

In choosing the methods for data collection, a multi-method approach was found to be more appropriate over a single method approach. The triangulation from this approach would provide rich multiple viewpoints necessary for understanding the influence of the different stakeholders and processes followed at the DIET. As Hammersley (2008) asserts:

'Checking other sources of information- both for the purposes of testing the validity of one's initial interpretation and to provide complementary information- is a routinely used practice in everyday life; and one that was incorporated into scholarly work ...long before the triangulation metaphor was developed. Given this, we should hesitate to reject it on philosophical grounds' (Hammersley, 2008:11).

It would be useful to investigate what generated similarities, differences or new viewpoints among the participants and arrive at a richer interpretation of the situation. This would be important for strengthening the findings of the research. The details of the data collection are given in the Table 3.1.

Seq. of data collection	Method	Participant	Kind of data to be collected
1.	Open-ended semi-structured interview- Session 1: pre-classroom observation	TE1 (subject)	Ice-breaker, TE's conceptions of good practice
2.	Classroom observation 1	TE1 (subject)	TE's teaching practice as related to learner-centredness
3.	Open ended semi-structured interview- Part 2: Post-classroom observation	TE1 (subject)	Why the TE did what she did, What were the other techniques she used What was her view of learner-centred education
4.	Classroom observation 2	TE1 (subject)	TE's teaching practice as related to learner-centredness
5.	Open-ended semi-structured interview- Part 3: Post-classroom observation 2	TE1 (subject)	Any further clarifications needed
6.	Focus group discussion, starting with a projective test.	4 TEs (peers of TE1, Community of practice)	Peer group's opinions and information on learner-centredness, the teaching practices, norms, processes followed, conditions of work and development support at the DIET.
7.	Open-ended semi-structured interview	Principal of DIET (Community of practice and DIET Rule maker)	Evidence of institutional priorities of the DIET, the principal's understanding of learner-centredness, support provided to the TEs at the DIET

Table 3.1: The different data collection methods, the participants and purpose

3.2.1 Semi-structured Interviews

I planned to conduct face-to-face open-ended semi-structured interviews and audio-record them digitally.

‘By asking people about their beliefs, attitudes, and actions, we can gain an understanding of how they see the world and therefore why they act in the ways they do.’ (Hammersley, 2009:51)

Construction of reality, in this research, is a result of the interpretation of the two people concerned, more strongly of the researcher’s since the participant’s perspective is viewed ‘through the researcher’s own distinctive worldview, attitudes and feelings, etc.’ (Hammersley, 2008:38). Realising this, I tried to decrease this effect by listening to the teacher-educator’s audio recordings later and reflecting more analytically on what she said.

Semi-structured interviews allowed me to control the flow and structure of the interview while asking open-ended, exploratory questions; giving space and opportunity to the interviewee to speak freely on issues important to me and the participant (Denscombe, 2003). I was free to delve deeper to understand better what the participant valued.

With TE1, I planned a pre-class observation interview to get acquainted, collect background information and capture the teacher-educator’s conceptions of good teaching. The second post-class observation interview was designed to probe the intrinsic reasons for particular teaching practices observed in class, and more about learner-centred collaborative teaching techniques that were not carried out in the two classes I observed.

The principal’s interview was planned as the last data collection activity. By this time, I was able to develop the right questions to understand the priorities and pressures on the DIET system, and the principal’s views on different relevant issues.

3.2.2 Classroom observation

Classroom observation of the teacher-educator provided evidence of how the teacher-educator actually taught in a classroom as against what the teacher-educator said in interviews. I observed the teacher-educator's practice over two one hour sessions.

'A second orientation that sometimes underpins qualitative research is concerned with finding out what *actually* happens in some situation, as against what people *say* happens, what people *actually* do rather than what they *report* they do, what they *actually* believe as against what they *claim* to believe' (Hammersley, 2008:38).

Finally, the observations did not go exactly as planned because the classroom was large but crowded, about 50 feet x 200 feet long and held about 160 students. There was no moving space except for an aisle which the teacher-educator used trying to reach all the student-teachers, with a microphone in hand. I hand-held the video camera instead of fixing the video camera on a tripod as planned, and shot the scene following the teacher-educator. I made sure I completed the field notes offline, the same evening, before I forgot details. On my request, the teacher-educator carried the audio recorder in her bag, during the first class. However, for the second class she refused, and preferred to deliver her lecture from one position at the front of the class with the audio recorder on the table. Maybe because of this the second of the two classes I observed was much less interactive than the first. A better option might have been to hook the audio recorder at the waist on the teacher-educator's sari. In India, women are used to carrying bunches of keys clasped at their waist.

3.2.3 Focus group discussion

Focus group discussions are also referred to as a sort of group interview (Hammersley, 2009). These are valuable to gain in-depth information from a group of people to understand their reasons things exist or happen as they do and the reasons for peoples' opinions. In a group, people get stimulated to share things they otherwise might not (Hammersley, 2009:52). People in a hierarchy conscious society, like India, are very wary of this sharing. Other disadvantages were that the discussion might meander or some members dominate.

Though time was short, it was important to carry out a focus group discussion to understand how the other teacher-educators, peers of the main teacher-educator influenced her learner-centredness through their knowledge of pedagogy, learner-centredness and teaching strategies. It would also give a better understanding about the rules and environment at the DIET.

The short time at the DIET did not allow me to build a rapport with the teacher-educators. To build a relaxed, safe atmosphere, I spent some time before the discussion answering their rather personal questions as honestly as I could. For the rest I decided to begin with a projective technique. I invited the teacher-educators to collaboratively build a story around a sketch of a fictional young teacher-educator (see Appendix 3.4) at a DIET, her work life, her decision-making, and aspirations. Projective tests, developed in psychology, based on the hypothesis that when respondents are faced with ambiguous stimuli, they project aspects from their personalities and lives onto the stimuli in order to make sense of them and imbue them with meaning. In doing so they reveal needs, wishes, information and conflicts (Zeepedia, 2014). I hoped the information collected would be insightful and a true description of the circumstances at the DIET.

The focus group discussion was conducted in spoken Hindi with smatterings of English, the norm at the DIET. I facilitated the story to keep it focussed on the research and ensure participation. The peer teacher-educators enjoyed building the story of the imaginary teacher-educator around the sketch presented to them. Some were used to building stories with their students. Though I controlled the flow of the story, the participants expressed themselves freely. There was a point in the discussion when the teacher-educators started talking about their own experiences instead of the imaginary teacher-educator's story and I took up on this, finally asking them direct questions. The final outcome was a transcript (See Appendix 3.4). A wealth of rich data was collected as a result of this discussion. Only a part of transcript that answered the research question was used. Perhaps the remaining data can form the basis for a subsequent report, beyond this thesis.

3.2.4 Using equipment and media for recording data

I audio recorded all data collection activities and videoed the classroom observations and the last two interviews as these provided rich data.

Both the audio and video recorders were very small, nondescript and efficient, attracting little attention to themselves visually. The quality of the final tapes was noisy with sounds of fans, the city, other conversations in the same room and the slightest noise on the table seemed amplified. Trying to understand how the recording could be improved the next time, after the research, I learned that an audio recorder, flat on the table, records the slightest sound relayed over the surface of the table. A small stand called a 'guerilla' tripod can hold the audio-recorder curled around table legs of a table, out of sight, instead of being placed flat on the table. This greatly improves recorded sound quality.

I was well advised by a supervisor to switch on the audio recorder at the beginning of every interaction. People at the DIET got used to me doing this and later also using the video recorder. I photographed details of class posters and the text on the whiteboard to get close-ups, to record details missed by the video recording.

Finally, the video recording of the classroom teaching was especially useful as it captured rich information like no audio recording or field notes could. It caught the interaction between the teacher-educators and student-teachers, their body language and movements during the class.

3.2.5 Translation and transcriptions

Once the data was collected, both the audio and video files were transcribed to Hindi and also directly translated and transcribed into English. Transcription becomes a tool for analysis revealing patterns and ‘correspond to a researcher’s interests and what they see as the analytical potential of their data, as well as their wider beliefs and values’ (Swann, 2010:163).

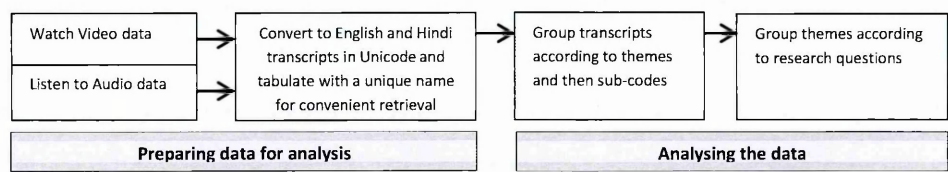


Figure 3.1: Process followed for preparing data for analysis by coding and thematic analysis

3.3 DATA ANALYSIS: METHODOLOGY, TOOLS AND PROCEDURE

The process of data analysis involved bringing together data gathered through interviews, observations, and discussions, into tables and diagrams, to reveal patterns and stories leading to explanations of the nature of things studied (Denscombe, 2007).

Data analysis methods include interpretation and analysis of recorded talk and audio-visuals in the form of transcriptions for their meaning or perceptions of reality.

‘Thematic analysis provides a flexible and useful research tool that can provide a rich, detailed, yet complex account of data... in relation to the research question, and represents some level of patterned response of meaning within the data set’ (Braun and Clarke, 2006:78, 82).

Themes, in the transcriptions, were initially identified deductively (top down) as related to the research questions and derived from the Activity theory framework and the NCFTE (2009) Table 2.2. e.g Rules, Roles, Tools. Codes were added to themes, Tools: facilities: class size, Tools-cohort size. Many codes were derived from parameters for learner-centredness in classroom activities. A few new themes emerged inductively (bottom up) from the data

and so were data driven e.g. Theme: Teacher conception, with code: good management. The themes and codes are shown in Table 4.1.

Table 4.1: Themes, codes and sub-codes used to describe the data collected

Theme	Code	Code with Sub-code
Teacher conception	Active learning, Child centredness, Commitment, Facilitative, Good management, Interactive teaching, Learner-centred, Learning by practice, Motivation for adult learners, Open to learning, Relevant to life, Satisfy students, Subject knowledge	
Teacher practice	Knowledge is fluid, Knowledge is fixed; class discussion, Lecture, Real life link, Curriculum is fixed, Independent and group inquiry, Interactive teaching, Knowledge about students, Learner engagement, Whole class teaching	Collaborative work: Critiquing, Debate, Field work, Group presentation, Group projects, Group work, Microteaching, Peer evaluation, Practice teaching, Interactive teaching: Closed questions, Open questions, Metaphoric questions, Body language, Movement, Student interaction. Learner engagement: Encouragement, Related to real life, Relevance, Responsive to students, Mutual respect.
DIET related	Learner motivation, Resources, Adult learners, Community, Environment, Facilities, LCTE, Learner motivation, NCF (2005), NCFTE (2009), Other work, Processes, Recruitment, Rules, School students, TE Development, Tools, TS quality	Facilities: Class room, White board, Microphone, Rules: TE Recruitment, TS selection, Attendance, Examinations

To accommodate and correlate Hindi, English, and visual interaction along with codes and themes, the following format (See Table 3.2) was adopted from a column layout Swann suggests for transcription of small group talk.

No.	Hindi transcript	Name of speaker	English transcript	Further description (spatial, movements, gestures, etc.)	Theme + code	Research question answered	Notes

Table 3.2: Format for transcription (Adapted from Swann in Hurston et al (eds) 2010:163)

Using this format, quotations and descriptions supporting the themes and codes were identified, uniquely numbered for easy retrieval and sorted (See Appendix 3.5).

To understand how a teacher-educator applies learner-centredness in classroom practice, a rubric table was developed based on the NCFTE (2009) (Table 1.2), Schweisfurth’s (2013) continuums (Figure 1.1a-b) and minimum standards for learner-centred education (Table 1.3). This tool (See Table 3.3, an extract) was designed to communicate, qualitatively, whether the teacher-educator’s teaching practice was teacher-led (See descriptors in

Column A1-I1), learner-centred (Column A3- I3), or hybrid (Column A2-12). The full table is given in Appendix 3.6.

Table 3.3: Extract from a rubric tool format created to represent a teacher-educator’s practice

Dominant practice of teacher education NCFTE (2009)	Teacher-led teaching and learning practices	Hybrid teaching and learning practices	Learner-centred teaching and learning practices	Recommended process-based teacher education NCFTE (2009)
TL-A	A1	A2	A3	LC-A
Focus on psychological aspects of learners without adequate engagement with contexts. Engagement with generalised theories of children and learning.	Extrinsic learner motivation	A mix of extrinsic and intrinsic motivation	Intrinsic learner motivation	Understanding the social, cultural and political contexts in which learners grow and develop. Engagement with learners in real life situations along with theoretical enquiry
	The teacher-educator delivers the topic for the day in class, with no special effort to engage the student-teachers.	Teacher-educator delivers the topic in a fixed knowledge paradigm, engaging the student-teacher with her technique, not necessarily depth of theory and content	Teacher-educator plans and delivers the lesson to be engaging with sufficient depth of theory and content, for the student-teachers	
	Language is difficult or foreign	Language is subject oriented and just understandable	Language is accessible	
	Examples, etc. are not relevant to learner’s lives	Some examples, etc. are relevant to learners’ lives, some are not	Examples, etc. are deliberately chosen to be relevant to learners’ lives	

3.4 REFLECTIONS ON THE METHODOLOGY

3.4.1 Reflections on data collection

Reflecting back, I learned that the interview length must stay within the attention span and convenience of the participant and be no longer than forty-five minutes. The post-observation interview needed to be done the same day else the teacher-educator’s recall would suffer. I could sense the teacher-educator tiring out. I realised I had planned for too many questions and as a result left many unanswered as I tended to hurry into asking my next question without giving due attention to what was being said. Listening back to the interview recordings, I see missed opportunities where I could have probed deeper. In future studies I would be better prepared with a more thorough literature review and fewer and more focused questions.

3.4.2 Reflexivity and research persona

‘Research from interviewing has demonstrated fairly conclusively that people respond differently depending on how they perceive the person asking the questions.’ (Denscombe, 2003:169). I was very conscious that I needed to produce an account of the teacher-educator and the DIET that was as close to a teacher-educators’ understanding of the situation, from their point of view, and be as little influenced by my own experience.

During the data collection, I realised that both the teacher-educator and student-teacher might behave unnaturally in the class showing procedural reactivity towards being recorded through a video camera and with personal reactivity to my presence as an observer (Hammersley, 2009). To keep this reactivity to a minimum, I decided to emphasise, in my research persona, my experience as a teacher, an academic and teacher-educator away from her family pursuing her PhD in UK. While acknowledging my differences, like coming from a university in UK and so being privileged, I would try to play them down. I planned to be one of them in dress, food, speech and general manners. Scheyvens and Storey (2003: 100) believe that creating 'a good impression is indispensable to the successful completion of ...research programs.' During interactions, I shared some personal details about myself to make the sharing more equal, show trust to gain trust. I remained polite, listening, non-judgemental, neutral, and a peer.

Doing research in my own country, I was on familiar ground. This reduced misinterpretation but I had to be careful, too, that I didn't miss observing things due to familiarity.

3.4.3 Language

Working with two languages increased work when developing all the research tools. All the material was first developed in English, submitted to HREC for approval, then handwritten and translated into Hindi, sent to India for keying in, sent for review to another teacher-educator in India for cultural and technical correctness, changes made in UK and then India, printed in UK and finally copies of each tool made ready for the field. In future, I will either learn to key in Hindi or key Hindi in Roman script. Outsourcing transcription led to too many inaccuracies and misinterpretations that needed further rounds of corrections, which I carried out in Roman script. E.g.

दक्षता। राइट। अब हमको जितने लोगों ने जितने भी सब्जेक्ट पढ़े हुए हैं। Aap neeche aa jaen ya aap vahin se... हमारी जितनी भी qualification है वो सब ठीक है। इसमें अपने आपको define करो कि आप कौनसे टाइप के category में आते हो। देखिए ये बताना है

3.4.4 Timing of the study

The data collection for the study took place in the first week of an annual academic cycle April 2014. The students who attended the classes I observed were a fresh batch. These were their first days at the DIET. The older more experienced batch were not available for classroom observation or interviews because they were on the field doing practice

teaching. To involve student-teachers the research must be done at a time suitable for them.

3.4.5 Reciprocity

I gave gifts to all the participants at the end of the research. Black (1979 cited in Scheyvens and Storey, 2003) argues against this as it confirms inequalities but I kept the gifts small and something the participants were unlikely to buy for themselves. In India it does not reflect a patronising relationship. It is a normal form of appreciation.

3.5 CONCLUSION

Having collected the data and transcribed it, I was ready to move onto analysing the data, and finding patterns and meanings in it and interpreting it to answer the research questions.

4 DATA AND INTERPRETATIONS

The data was collated in three ways to answer the three research questions. Quotations from TE1's interviews and observations in the classroom were used to understand TE1's conceptions of good teaching. An overall picture of TE1's learner-centredness in practice was built using a rubric tool developed for the purpose, described in the previous chapter. A diagram developed from the Activity Theory model was used to understand the different ways the DIET influenced the teacher-educator's learner-centredness. The interpretations obtained from these tools are discussed in this chapter.

4.1 WHAT ARE THE TEACHER-EDUCATOR'S CONCEPTIONS OF GOOD TEACHING?

Social contexts and culture shape the development of human beliefs, values and ways of acting.

‘Teachers have clear objectives in their work that draw on a range of influences: their own schooling, their experiences as parents, pre-conceived understanding of teaching and learning, their own knowledge of the community they taught in and their religious beliefs. (Buckler, 2012:12)

Many of these influences and beliefs were visible during the interviews with TE1 along three tracks. These were TE1's early personal influences that inspired TE1 to become a teacher, followed by the TE's concepts of good teaching which were personal, epistemological, contextual and process-based (Thomas, 1997) and finally her formal understanding of CE, LCE and differences in teaching children and adults in a learner-centred way.

4.1.1 Personal influences

TE1, the main teacher-educator I interviewed and observed, always dreamt of becoming a teacher, a University teacher. She said, ‘This was my dream since childhood- my passion’. When her marriage was arranged at 18, she saw her dream slipping away and insisted on being supported to complete her BEd. Professionally she practiced as a government secondary school teacher for 17 years and a teacher-educator at a DIET centre for the next 16 years. 20 years after graduation she completed her MEd through distance learning.

TE1 talked affectionately about her favourite teacher. She admired her school principal, her ‘idol’, for her personal interest in students, good administration, discipline and being able to live her life on her own terms. TE1 admired her English teacher for her passion and

sincerity. She found her teachers loving and encouraging, who taught concepts very clearly through lectures.

TE1 had strong personal and religious beliefs which were visible during the interviews and in her strong commitment to work and duty. After retirement in 2015, she wanted to continue in part-time work but was uncertain about her future. She ended saying, 'You live your life the best you can, the rest you leave to God.'

4.1.2 Conceptions of good teaching

TE1's personal beliefs played an important role in her conceptions of a good teacher. She rated high commitment and leading by example as the most important characteristics of a good teacher. She said:

'Number one is that the teacher should have her own commitment (emphasised). Whatever she says to her students, she should follow it in her life... She should not make false promises...Because you are building a student. A teacher is like God.' (TE1Int2-54)

Her comparison of a teacher to God reflects the seriousness with which she viewed her professional responsibility. The comment ascribes a moral responsibility to a teacher rather than an all-knowing one.

This belief was challenged in the current work situation at the DIET. Increased intake increased her workload and diluted her abilities to meet her work commitments as well as she would have liked. For example, when reviewing practice teaching she said,

'We have 200 students. Quite often I am not satisfied with their teaching, but have to rush through things, I OK the work and move on, because time is short' (TE1Int1-296).

Her greatest source of dissatisfaction in her job was when she had to hurry through work resulting in lack of quality. She said, 'In less time I will not be able to do the job satisfactorily, I cannot understand how to do it, I need time to think' (TE1Int1-288). In the end she resigned herself, 'I do all the work assigned to me, maybe not on a satisfactory level, there is no question of not doing a job' (TE1Int1-292). Teaching well according to her scheduled plan, was important to her.

'When there is more work, then the class often gets missed because I have to go on to the field. But, I do my classes with those students who are interested. ... I have to satisfy myself, too.' (TE1Int1:278-294)

In the process of planning her classes, she aimed at interactive teaching, engaging the students and motivating them to think critically. TE1 took on a whole class approach keeping her students active through closed, open and rhetorical questions, discussions and simple collaborative class activity. She did not believe in pointing out when a student was

wrong. Instead she would counter question them or give them many answers. When asked what gave her the most joy in her work, she said, 'Whenmy student-teachers ... ask some questions and I can satisfy them totally, then I feel very happy' (TE1Int1-278).

TE1 knew the backgrounds of her student-teachers and primary school students. She addressed her teaching to their needs and point of view. She used language familiar to her students. In fact, the topic of study in the class observations was 'Language use in the primary classroom'.

Epistemologically, the importance of satisfying her students made her aware that she did not have all the answers. This kept her open to new knowledge and also led her to embrace new technologies. When she could not answer a question she acknowledged she did not know. She admired her students as they were technologically smarter than her and more qualified and used this to find answers she could not have, yet retaining the responsibility of providing the answers.

'Yes, I clear it up. ... I don't have internet on my phone and I am not so expert in technology, my students are experts, I ask them to look it up immediately on the internet... and then I explain it. My children support me...Also, sometimes I am not satisfied with the Internet, then I look for more studies, or consult an expert on the phone, from my contacts, and I clear it up' (TE1Int-59).

The subject expertise TE1 acquired through her school, BA, BEd and MA followed her through life at the DIET. She taught the subjects she graduated in like Geography, Sanskrit, English, Hindi, Psychology and Teaching Methods. She was proud of her command over Geography. At the DIET she was the subject matter expert. While she attended short workshops in her career and rich on-the-job opportunities to learn, there was no planned up gradation of knowledge.

Interested in her conception of CE and LCE related to the study, I asked her specifically about these concepts.

4.1.3 Conceptions of child-centred education

TE1 learned about child-centred education (CE) during her B.Ed. training in 1981. For her, CE catered to different kinds of children's learning needs based on the learner's social background, intelligence, conceptual weaknesses, and special physical or mental needs. In the BTC programme, child-centredness was taught as part theory on child psychology. Though TE1 was aware of its importance in the RTE, she did not show a clear conception about it.

Child-centred education

(TE1Int2-196-218)

R: You have heard the term Child-centred?

TE1: Yes, we give child-centred education.

R: What is the meaning of child centred?

TE1: That is what the child will need (unclear)

R: What do you mean by child-centred?

TE1: By child-centred we mean...when our (teacher-- student will go to teach children he will have to see what is the need of the child. If the child is intelligent, so we will have to teach him accordingly. If the child is weak, we will have to teach him accordingly. If there is any special need then he will have to be taught accordingly, so that we can explain that concept to him well. This is child-centredness. It is based on need, based on the mental level of the child, physical problems, which society he is from. Looking at all this, we need to teach the child.

R: Physical and mental needs and societal needs?

TE1: OK, yes.

R: So, then how do you teach your students?

TE1: No, we have a whole course, a whole paper in child psychology, theoretical paper which children (teacher-students) have to study. So, in child psychology we teach a student about how he should handle a child is in the course. It is in our curriculum.

R: Then, this is not an emphasis in each subject?

TE1: Yes, in child psychology. It is in the second semester. The complete psychology of a child is

studied in that semester and accordingly you have to teach. It can be any subject. When we have understood the child then we will teach any subject accordingly.

R: It is taught only in child psychology. When did you first learn of this term 'child....'

TE1: Child-psychology?

R: No, child-centred?

TE1: Child-centred education? In intermediate when I took up Education and studied it then.

R: Do you feel that when you were studying, then child-centred psychology was used?

TE1: Use...Lecture method was there, but the attention on the child was not applied so much. Effort was going into it but not regularly, like now it is being done.

R: So, recently when did you realise the emphasis on this?

TE1: No, I was clear on it since Intermediate because I had learned child-psychology...

R: You said recently..

TE1: Recently it is being emphasised, in Right to Education. There is a lot of emphasis on this since Right to Education. But this has been there always. (gets distracted by some noise at the door) Who is doing what here? (calls out loudly) Open the door, it is open. What is it? Come, the door is open. (the door creaks loudly and bangs.).

Appendix Box 4.1: Interview extract of TE1's conception of child-centred education

4.1.4 Conception of learner-centred education

LCE was new for TE1. When asked about what LCE meant, she tried connecting it with her existing knowledge. She guessed it was about centres of learning, or the same as child-centred pedagogy, finally admitting she did not know what LCE meant. To her credit, it is not a term that is used in any policy documents in India except two times in the NCFTE (2009). Learner-centredness is referred to teacher education which is redesigned to focus on the learner or 'provide a greater 'space' for the personal, social, professional development of the teacher....bringing the learner's own experiences centre-stage' (NCFTE, 2009:24, 42).

Learner-centred Education

(TE1Int2-219-231)/ Check (TE1Int2-196-218)

R: There is now a new term called learner-centred. Have you heard it?

TE1: Yes, learner-centred.

R: So, what do you understand by learner-centred?

TE1: By learner centred we mean...like for our students, this is a learner centre. They are learning here so this is a learner centre. And for the para-teachers, the Block is the learner centre. They have to come there (for learning). Learning standard is learner-centred. Other than this, then I don't know. (sounding a little on edge) If it is something else then I don't know. For us learner centre is where the child will learn.

R: Centre? No. In teaching pedagogy?

TE1: Is learner-centred and child-centred the same thing? I think there is no difference between the two. Depending on the interaction, how much we make them active in

class, we will understand them better, what they want to know. The amount we take questions from them, in accordance we will fulfill them. This is the best way.

R: To question them?

TE1: Yes, with questions we can understand how to deal with which level of student.

R: This will apply both to small children and older students?

TE1: For small children it will be a little different. For a small child we will have to make such a thing...that he will work on it a bit, self-learning materials will have to be handed to the child, according to the mental level. Because (the child) with high mental level has very fast learning, but the one with less (intelligence) we have to ready material differently for him.

Appendix Box 4.2: Interview extract of TE1's conception of learner-centred education

4.1.5 Differences in conceptions in teaching children and adults

According to TE1, teaching adult student-teachers was different from teaching children. She believed that learning by doing, by play, through activities and practice was done with both children and adults. With children, the emphasis was on play and activities were greater, and with adult learners the emphasis was more on practice. According to the teacher-educator, school children needed to be taught content whereas the student-teachers already knew subject content and needed to be taught how to teach the content to primary school children. This made practice very important for the student-teachers. The teacher-educator also emphasised that both the student-teachers and school children would only learn if they were interested, so a teacher-educator's job was to understand what interested them. One way she suggested for student-teachers was to ask them to teach a topic and then suggest how it could be taught better. The NCFTE (2009) emphasises the need for teacher education institutes to demonstrate understanding of how adults learn.

Differences in teaching children and adults

(TE1Int2-247-249-261)

R: So, for children it is learning by doing but older students can learn on their own?

TE1: Yes.

R: So, abstract learning happens?

TE1: Yes. Learning by practice, learning by doing, learning by activities, learning by play. We can give activities to them in the form of play. So, with small children we need to apply all this. This is the difference between small children and older children (students). We will not do all this here. We will do activities, but for children we need many activities, we need play, doing, we need to involve them in all these, then small children learn.

R: So, for older students you are saying learning by practice, is what you are saying?

TE1: Yes, learning by practice.

R: Your students are adults, right?

TE1: Yes, adults.

R: So, to teach them, what is the difference from children?

TE1: Look, for small children you need to tell everything. This could be alphabets, writing, reading, small children need to teach everything new. These children (teacher-students) don't need to be taught anything new. They have come having studied subjects. These need to be taught

subject related content should be taught to young children. This has to be taught here. So, here practice has great importance.

R: How do you motivate your adult students?

TE1: We learn about their area of interest. And then we add it to this. If you have come into this work, then to teach this topic what will you do? We will ask them this. They will tell us and then we will add our suggestions. If you do this this way, it will improve. First we will need to understand their area of interest.

R: Area of interest is important?

TE1: Yes, area of interest is very important because we cannot force them to learn. Small children can be made to sit in class, but if we don't see their area of interest then they will not sit in class.

R: But 90% attendance is mandatory.

TE1: With attendance (energetic once more) they may not attend the class. They will keep roaming around the campus, and not come into class.

R: Is attendance taken in each class?

TE1: First it was there, but since we have this (electronic) system, now attendance is not taken before every lecture. This was the case earlier. We had to take attendance before every lecture. Now that does not apply.

Appendix Box 4.3: Interview extract of TE1's conception of differences in teaching children and adults

4.1.6 Alternate, traditional system of beliefs

TE1 held traditional beliefs which she shared with her grandson and in an interview. There are no instances of these in the classes observed except when she likened a teacher to God in the first interview.

Appendix Box 4.4: Interview extract showing TE1's traditional beliefs

Alternate, traditional system of beliefs

TE1: ...You cannot teach primary school children also by forcing them, until you don't create an interest in them. For an example with my grandson, I would tell him to offer water to the sun and concentrate on the sun. Doing this confidence increases.

R: On the sun...?

TE1: I believe confidence increases when you offer water to the sun, I believe this since childhood...

R: By offering water to the Sun?

TE1: Since he was a child, I told him many times. Then one day I called him, I made him sit down, and I explained him what the reason was. (audio unclear). See the dream is (sapna niyamat hai)

R: So, what happens if you offer water to the Sun?

TE1: No, as such nothing happens, but there are so many planets, this is the only planet with life, where man lives...

has taken birth. In that with the rotation and it is because of the sun that we have water, wind, vanaspati. If you read the Vedas, then in the Vedas there is nature worship, the Vedas are filled with verses about nature, it is nature that has given all, if we do not worship it then what do we worship. This is in Indian mythology.

R: It's very nice.

TE1: So, I always join it. Where do you find this? In class, why is this, why is this not like this, I definitely question them. Until you do not give a firm foundation (by asking) Why? Why is this like that? (And then) come to the reason. Until there is no reasoning, until it is logical, the child is not willing to listen to you. ...Children have many questions and till you keep giving them answers, you see how the learning increases, goes faster.

4.1.7 Reflections on analysis: Conceptions of good teaching

TE1 was determined to become a teacher. Hearing her talk about it, and later watching her teach, it was apparent she enjoyed it. TE1 was a committed teacher-educator who believed

in leading by example, teaching interactively and satisfying her student-teachers. She was open to new knowledge and technologies. She expressed the importance of keeping her students interested. She believed in using varied teaching learning techniques which could be individual or collaborative. Two main classroom teaching techniques were 'interactive lectures and whole-class activity.' She worked within the curriculum. Her ownership of knowledge was high. She was proud of her good grasp of the subjects she taught. She had strong alternate traditional beliefs.

Child-centredness, for her, was about pedagogical concepts for children which were taught separately as part of a theoretical paper on child psychology, in accordance to the curriculum. She did not have a clear understanding of learner-centred education, for children or adults.

4.2 HOW DOES THE TEACHER-EDUCATOR APPLY LEARNER-CENTREDNESS IN CLASSROOM PRACTICE?

For analysis of the second research question, the rubric tool graded parameters of LCE in terms of motivation, engagement and mutual respect, conceptions of knowledge, curriculum, types of interactions, transmission and inquiry, individual and group work, practice teaching and spaces in the classroom for exploring individual positions on issues and misconceptions (See Table 4.2a-c). 48 quotes meeting the rubric descriptors were mapped to the rubric tool already described and are discussed in the following section.

Dominant practice of teacher education (NCFTE2009-10)	Rationalised to teacher-led teaching and learning practices	Observed or shared	Rationalised to learner-centred teaching and learning practices	Recommended process-based teacher education (NCFTE2009-10)
TL-A	A1	A2	A3	LC-A
Focus on psychological aspects of learners without adequate engagement with contexts. Engagement with generalised theories of children and learning.	Extrinsic learner motivation	A mix of extrinsic and intrinsic motivation	Intrinsic learner motivation	Understanding the social, cultural and political contexts in which learners grow and develop. Engagement with learners in real life situations along with theoretical enquiry
	The teacher-educator delivers the topic for the day in class, with no special effort to engage the student-teachers.	Teacher-educator delivers the topic in a fixed knowledge paradigm, engaging the teacher-student with her technique, not necessarily depth of theory and content	Teacher-educator plans and delivers the lesson to be engaging with sufficient depth of theory and content, for the student-teachers	
	Language is difficult or foreign	Language is subject oriented and just understandable	Language is accessible	
	Examples, etc. are not relevant to learner's lives	Some examples, etc. are relevant to learners' lives, some are not	Examples, etc. are deliberately chosen to be relevant to learners' lives	
	Content is not delivered with relevance to future needs	Content is shaped according to the curriculum, not necessarily in touch with future needs	Content is shaped by relevance to perceived future needs	
Highly hierarchical	No respect and regard flows from teacher-educator to teacher-student	Respect and regard flows from teacher-educator to teacher-student, but lead, dominated and directed by the teacher.	Respect and regard flows from teacher-educator to student with space for reaction from teacher-student to teacher-educator, could be directed by teacher-student	Mutual respect
	No respect from teacher-student to teacher-educator	Respect and regard flows from teacher-student to teacher-educator in socially acceptable ways	Respect and regard flows from teacher-student to teacher-educator, deeply	
TL-B	B1	B2	B3	LC-B
Theory as a 'given' to be applied in the classroom	Knowledge is fixed	Knowledge is fixed, but delivered interactively	Knowledge is fluid	Conceptual knowledge generated based on experience, observations and theoretical engagement.
	Theory is a given. No reference to learner's / learners' existing knowledge individual or collective.	Teacher-educator builds on learners' collective knowledge through whole-class teaching, with a collective norm for the class knowledge, observations and theoretical engagement.	Teacher-educator builds theory and conceptual knowledge on learners' existing individual and collective knowledge, experience, observations and theoretical engagement	
	No microteaching	General class teaching with mentor feedback	Well carried out micro-teaching with peer feedback	
	Lesson plans developed in a formulaic manner and similarly assessed.	Well-developed lesson plans as perceived by the teacher-educator and critiqued from the teacher-educators view-point.	Well-developed lesson plans targeted for the real situation on the ground	

Table 4.2a: View of TE1's practice in a rubric tool developed from collated data

TL-C Knowledge treated as external to the learner, something to be acquired.	C1 Fixed curriculum	C2 Fixed curriculum with some inbuilt choices for teacher-educators	C3 Negotiated content	LC-C Knowledge generated in the shared context of teaching, learning, personal and social experiences through critical enquiry.
	Teacher-educator is authoritative	Teacher-educator balances facilitation with authority	Teacher-educator is facilitative	
	No class discussions	Teacher-educator initiates and encourages class discussions that are closed and carried out on the terms of the teacher-educator	Teacher-educator initiates and encourages class discussions that are open-ended	
	Only teacher to learner	Teacher to learner, with occasional interaction with learner	Teacher to and from learner	
	No learner to learner or learner to teacher interaction	Learner to teacher interaction	Learner to learner interaction (minimally observed)	
TL-D Teacher educators instruct and give structured assignments to be submitted by individual students.	D1 Authoritarian	D2	D3 Democratic	LC-D Teacher educators evoke responses from students to engage them with deeper discussions and reflection.
	One way transmission	Directed dialog is used	Dialog is used	
	No questions to learners	Closed questions to learners	Open ended questions to learners	
	No questions encouraged from learners.	Teacher-educator controls the questions from learners. The environment is teacher-directed.	Environment conducive for learners to ask questions. Questions are applauded and appreciated. (but no questions were asked by the students)	
TL-E Training schedule packed by teacher directed activities. Little opportunity for reflection and self-study	E1 Frontal 'chalk and talk' transmission	E2	E3 Independent or group inquiry	LC-E Students are encouraged to identify and articulate issues for self-study and critical enquiry. Students maintain reflective journals on their observations, reflections, including conflicts.
	Teacher dominated Lecture	Teacher dominated lecture with teacher-directed limited interaction	Interactive lectures	
	No space for reflection	Limited space for reflection and open-ended inquiry	Space for reflection through individual or group inquiry	
	Pre-worked out answers expected	A mix of both.	Reflective assignments	
TL-F Students work individually on assignments, in-house tests, field work and practice teaching.	F1 Individual work	F2	F3 Group work	LC-F Students encouraged to work in teams undertaking classroom and learner's observations, interaction and projects across diverse courses. Group presentations encouraged.
	Pre-worked out assignments to be submitted by individual students	Individual assignments completed by student-teachers with their original thoughts and views.	Assignments, group presentations	
	In-house tests, no presentation	In-house tests and individual presentations	Group presentations	
	No presentations	Presentations encouraged in pre-worked out formats	Peer demonstrations	
	No peer demonstrations	Selected students chosen for doing presentations	Field work	
	No field work	Field work in specific schools	Practice teaching in accordance to school	
	No practice teaching	Practice teaching to complete teacher		

Table 4.2b: View of TE1's practice in a rubric tool developed from collated data

TL-G Practice teaching of isolated lessons planned in standardised formats with little or no reflection on the practice of teaching.	G1 Practice teaching Without reflections Standard formats for records No peer evaluation	G2 Practice teaching with minimum reflections Records with some amount of critical inputs Peer comments invited but evaluation done by teacher-educator	G3 Practice teaching with deep reflections Critical records Peer evaluation	LC-G School internship- student teach within flexible formats, larger frames of units of study, concept web- charts and maintain a reflective journal.
TL-H No structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge part of classroom discourse.	H1 No "space" to address students' assumptions about social realities, the learner and the process of learning in class.	H2 Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates only within a framework of fixed knowledge	H3 Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates and assignments	LC-H Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge part of classroom discourse.
TL-I No, "spaces" to address students' assumptions about social realities, the learner and the process of learning	I1 No "space" to examine students' conceptions of subject-knowledge except through tests and examinations	I2 Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom and group discussion, critiquing of practice, presentations, and debates within a framework of fixed knowledge	I3 Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom and group discussion, critiquing of practice, presentations, debates and assignments	LC-I Learning "spaces" provided to examine students' own position in society and their assumptions as
	KEY	Data from class observations	Data from interviews	

Table 4.2c: View of TE1's practice in a rubric tool developed from collated data

4.2.1 Motivation, engagement and mutual respect

TE1 motivated and engaged her students and showed mutual respect in the two classes I observed. Her tone was enthusiastic, and manner open and positive (see Col. A3, Table 4.2) She greeted the students with a welcoming 'Hello! A heartfelt welcome to you all, to the BTC 2014 programme.' She immediately credited her students for having gained admission, interacted with them and showed a familiarity with their backgrounds. She introduced them to their school learners and their needs, generating knowledge in a shared context, making learning relevant to the learners starting from where they were (See LC-C, Table 4.2b).

She used accessible Hindi with smatterings of English. The teacher-educator checked for student understanding at regular intervals through questions or whole class confirmations. In class, before she introduced the topic she checked the microphone and asked the students if they could hear her. With this she fulfilled some of the first recommendations in process based teaching in the NCFTE.

The examples in her teaching were deliberately chosen to be relevant to learners' lives. Analogies of riding scooters, learning swimming, driving a car and making chapatties were used to teach concepts clearly (TE1CO2-14-15).

A mutual respect was visible (See A2, Table 4.2a) with students responding to the teacher-educator's questions. TE1 tried engaging the whole class by encouraging both boys and girls to answer, drawing them out while learning and using their names to do so. The students were seen to voluntarily attend her class because they found it engaging. A class that started with about 50 students ended with about 160 students.

'They had (all) gone out, all of them came back (said with pride), and attended the class till the end... In my class no one misses the class.' (TE1Int3-158).

TE1 shaped the content with relevance to perceived future needs, as recommended in the NCFTE (2009) by asking the class for how long did they think a local language needed to be used, at the beginning of primary school?

However, for the classes observed, depth in class preparation and delivery was lacking. She provided no overview to the course or introduction to how the class fit in with the larger picture of the BTC programme. References to books, papers and other sources for further study and an outline of expectation and participation from the students in terms of projects, examinations, assignments were not shared. The class ended abruptly on both occasions with a glance at the clock when the teacher-educator sensed the students were getting restive.

4.2.2 Knowledge is fixed

The teacher-educator did not yield the control of the class. She delivered the topic in a 'fixed knowledge paradigm' (See B2, Table 4.2), with interaction also controlled by her.

4.2.3 Authoritarian and democratic

In the class of 160 students, the teacher-educator built on concepts through whole class teaching. TE1 used a lot of directed dialog, closed and open questions (See D2, Table 4.2b). Individual opinions were expressed one by one, by five students only in a one hour class limiting the active learning and critical thinking to a few students only. Very few students took notes and answers were prompt given in unison.

4.2.4 A mixture of frontal transmission and inquiry

TE1 sometimes balanced facilitation with authority by asking open ended questions, having students express their views and then approving their answers based on her own knowledge and opinion. At other times she openly acknowledged she did not know everything and took help from her computer skilled students.

During the class, though the environment seemed conducive to questions, no students actually asked a question. Both classes observed were packed with teacher-directed activities and learning events. There was little time or space made in the class to carry out learner-to-learner interaction except through whole class sharing.

4.2.5 Collaborative group work within a fixed curriculum

TE1 said she encouraged active and collaborative learning through project work, debates, group presentations, field work, etc. The curriculum was fixed. ‘... Topics are always taken ... only from the syllabus. If the topics fall short, then we take it from their textbooks. (TE1Int3 55-58). The students were given freedom to find content for the group work and projects from any medium or source (See F3, Table 4.2b)

‘They have full freedom- take help (from anywhere) from the Internet, from graduation books, post-graduation books, because the project is not for children. It is for the student-teacher. ... Depending on how enhanced their knowledge is our (school) children will benefit’ (TE1Int2-82).

4.2.6 Practice teaching

According to TE1, student-teachers got many opportunities to do in-class teaching. Lesson plans were well developed and a clear process was laid down for mentoring and peer critiquing both lesson plans and practice teaching (See B2, Table 4.2a).

4.2.7 Spaces in class to address misconception and build self-conceptions

Class discussions took place in which the students had opportunities to express themselves. This did not extend to assignments or more open discussions, led by students asking questions.

4.2.8 Reflections on analysis: Towards a learner-centred practice

Looking at the Table 4.2a-c, TE1’s practice falls in the central column 2 (A-I) representing a hybrid approach to teaching. The classes were learner-led. TE1 built motivation and engaged the students, (using accessible language, examples that were relevant to learners, shaping content relevant to perceived for future needs. Respect and regard flowed two ways). She built knowledge from where the learners were, and gave them opportunities to express themselves conceptually on the topic of the classes observed, issues of language, while retaining the power to provide the ‘correct’ answer. TE1 was enthusiastic about group work, micro teaching, practice teaching and other collaborative techniques popular

in learner-centred programmes but this was not observed during the classes conducted; only talked about in the interviews (and so has been marked in green in the table).

TE1’s classes were teacher-led by following a fixed curriculum. The teacher-educator delivered the topic in a fixed knowledge paradigm but engaged the learners with her technique, not necessarily depth of theory and content. TE1’s classes remained teacher-led as the source of knowledge, retaining the control of the flow of activities, discussions and interaction in the classroom. Though she invited questions, students rarely raised questions. Directed dialog was used with limited space for reflection and open-ended inquiry. TE1’s class remained teacher-led but was experienced by the students as an interesting, interactive class which they attended voluntarily.

This tool which qualitatively and visually depicts a teacher-educator’s learner-centredness could be applied to other teacher-educators at the same and other DIETs making it possible to compare learner-centredness across DIETs and other teacher-training institutes in geographically different locations (Goetz and Le Compte, 1984, in Hammersley, 2007, pp 187). If teacher-educators at different sites showed the same or different trends, it would be informative to understand the reasons for the similarities and differences through further studies. This would have useful implications for policy and practice.

4.3 HOW DOES THE DIET INFLUENCE THE TEACHER-EDUCATOR’S LEARNER-CENTREDNESS?

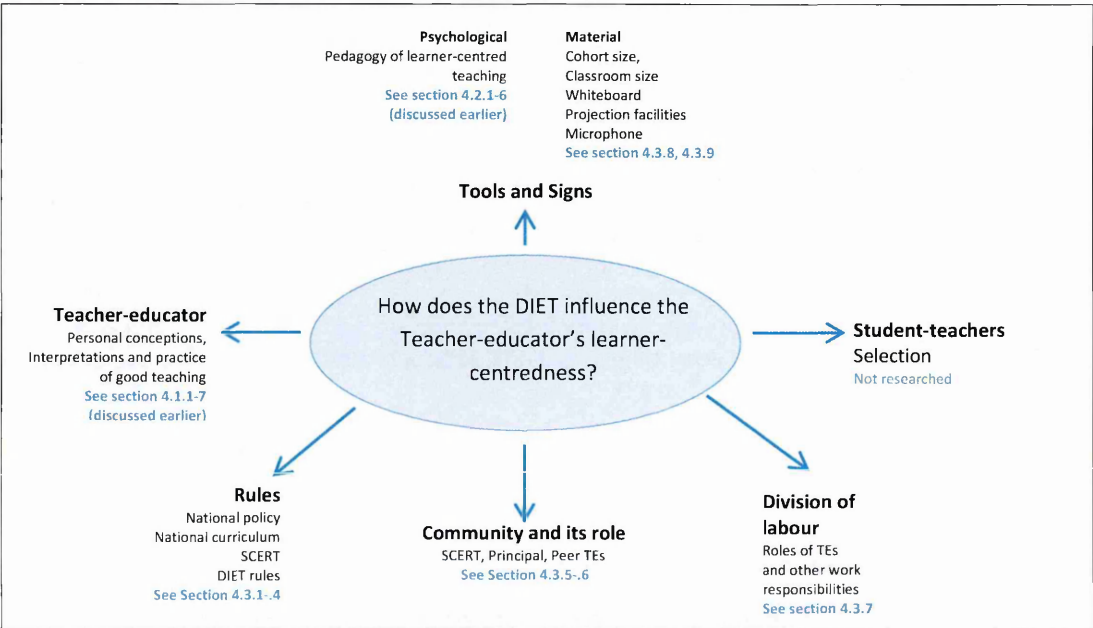


Figure 4.1: Model for influences on Learner-centred teaching in a DIET (adapted from Engeström (2000:962: 2007:377)

Figure 4.1 was developed to provide a framework to answer the third research question. This figure was influenced by the CHAT model, introduced in Chapter 3, to help tease out

the different influences on a teacher-educator's learner-centredness in the environment of a DIET. For analysis, the quotes were mapped to headings in the diagram to show DIET influences on learner-centred teaching.

INFLUENCES RELATED TO RULES EMANATING FROM NATIONAL POLICY AND LEADERSHIP AT THE DIET

4.2.9 Gap in NCFTE (2009)

While the NCFTE (2009) acknowledges the influence of the curriculum and text books to aid a teacher to fulfil her role as a good teacher, there is no acknowledgement about the influence and responsibility of the policy and aligned institutions like the SCERT and the DIET with its leader. That education is a shared activity between policy makers, institute managers, principals, teacher-educators, and student-teachers is overlooked. This has led to teacher-educators and not the institute or policy being blamed for their failure to train student-teachers well.

'We should not have to depend on their 20 years of experience which have given us low quality in classrooms, low quality in learning in the child...That means it was not working' (The principal, DIET).

In her interview, the principal identified the three challenges in education as:

'Lack of quality in education at the elementary level, a deficit of qualified teachers and lack of continuous professional development of teacher-educators and teachers' (Pint-88).

For the three top challenges in teacher education, she repeated the same points in a less analytical way, holding both the individual teacher-educators and lack of teacher-educator development responsible for the lack of quality in trained teachers.

'...if the child is not learning in the classroom ... you don't have to blame the entire cosmos. It's all about the teacher who is not teaching, ... the teacher-educator who may not be capable enough of creating that kind of motivated and committed teacher

We need to evolve a culture which promotes (an) enabling learning situation for teacher-educators and teachers. I don't think they find good opportunities hardly any habit of self-learning, reflective teaching ... in a DIET....

A teacher-educator at a DIET or a teacher education institute is not a role model for her student-teachers.' (The principal, DIET)

4.2.10 Policy implementation: Lack of a systemic plan

To ensure successful implementation of policy, there was no evidence visible of any systemic planning or preparation at the DIET. The principal acknowledged this:

‘Curriculum is here but ...related reading material, content, supplementary material, is not developed. ... it's about low preparation before you launch. So where do teacher-educators go if they have to take a class according to the new curriculum? They need some resource support which is not around. ... I think each and every teacher must be given some ... kind of ... orientation. ...I think a lot of ...very deep preparation, is needed for them... to get accustomed to ...(and) deal with this new kind of curriculum in the classroom’ (Plnt1-141-154)

The development of teacher-educators to teach the new syllabus seemed to be in no-man’s land. On May 2013, the Joint Review Mission, Uttar Pradesh (JRM, U.P.) visited the field to report on the State education institutes. For the preparation of the support material to be developed for the NCFTE syllabus launch, the JRM recommended that SCERT take responsibility for:

‘... curriculum renewal with the active involvement of the faculty but also systematic development of curriculum reading material and an intensive on-going process of faculty development related to it’ (JRM U.P., 2013:8).

The report also recommended that reading materials should be made available, in curricular areas outlined in the NCFTE (2009) in Hindi to all teacher-educators and student-teachers through study circles. Yet, the same report found the material developed for online development of para-teachers, wanting, showing a lack of reflective thought about gaps in the system by JRM.

According to the report, SCERT had begun preparation for the launch of the NCFTE (2009) ‘the process of revisiting the teacher education curriculum in line with the NCFTE (2009) has just about begun,’ during this research period; but there was no evidence of pre-launch NCFTE (2009) material at the DIET, a year after the JRM report.

The teacher-educators, according to the focus group discussion, had no awareness about the NCFTE (2009) and its key pedagogic message of constructivism or the accompanying new curriculum. They hoped workshops would be conducted to acquaint them with it. Preparation for the new classes assigned to them, based on the constructivist new syllabus, would be done as usual within ‘one hour.. to 3 days ...to 1month’(Focus group), depending on available time.

The principal knew more about the NCFTE (2009). She felt that ‘deep preparation was needed for teacher-educators to get accustomed to the new curriculum.’ If this did not take place, she doubted that they would be able to bring in change.

The DIET mandate, according to the principal, was to

‘provide academic support (for primary education) in all ways possible, whether it is through training, mentoring, providing on-site support or content development, anything- any kind.’

This study found a lack of pedagogical knowledge related to constructivism among the teacher-educators. The principal pointed to this gap in policy saying,

‘...We have to promote this culture of self-learning, self-reading and the government policy must back this up.... they must support. Policies are not supporting this’ (PInt-97)

As principal, she tried to ensure teacher-educator trainings, workshops and new on-the-job experiences. But exposure is no replacement to planned development.

4.2.11 Recruitment of teacher-educators

Since the development of teacher-educators was identified as a top challenge in the NCFTE (2009), the recruitment of teacher-educators becomes crucial. All the teacher-educators at the DIET were ex-government secondary school teachers merely transferred to the DIET. No interview is conducted to check if they have the essential experience in training primary school children, or teaching adults or understanding of pedagogy like constructivism and learner-centredness.

4.2.12 Lack of experience in teaching primary school children

The teacher-educators admitted to a feeling of inadequacy due to the lack of experience in primary school teaching. One teacher-educator from a secondary school experience, said:

‘Yes, if we have not taught small children, then how do we teach them (student-teachers) to do it? ... I lack that knowledge inside me. Why? Because we started teaching those children (in secondary schools) who’s cognitive and physical development has happened, who have learned to read and write... Here we have to teach (student-teachers to teach) children who don't know anything. That experience I do not have.’(FG-317)

‘We have not taught small children’

‘I used to make the timetable for my school. One day a teacher came to me, very angry, ...‘You have put 3 periods continuously. Daily I go to class, these children are small. Everyday I get hassled.’ I said, ‘You have to teach, how much do you have to manage?’ I felt one has to study a lot to teach older children, not so with younger children. I said, ‘Ok I will take your class.’ She said, ‘Go.’ I went to the class. Seeing me the children did not stand up. I started asking them their names. The children did not speak.

I took the register and asked, ‘Will you tell me your name? The names I will call out, I will play a game, I will teach you a lovely game.’ I started taking their names, and instead of anyone speaking, I looked up to see, they were crying. Not a single child got up and came. I got the experience that to handle small children is a difficult job. ...I told the teacher, ‘Ma, manage your class.’ (FG-339)

Appendix Box 4.5: Focus group extract about lack of primary school experience

INFLUENCES RELATED TO COMMUNITY AND ITS ROLE

4.2.13 Lack of knowledge about LCE

When asked, in the focus group discussion, how they would make their lessons learner-centred since the new curriculum called for it, like TE1’s answers, most teacher-educators answers pointed to nuggets of learner-centredness which varied in the different teacher-educators. But finally the solution was teacher-led.

What will you do to make your lesson learner-centred?

TE4: Our attempt will be to check where the interest of the students is and then according to this we try to teach the syllabus. Suppose, in the middle, the students don't want to learn, they are disturbing. The lesson should be flexible.	centre and prepare the lesson. When I go into class, first I will ask the students a few questions about the topic. When I know where they are, only then I continue my class activities.
TE2: Yes, so that we can change the lesson and teach it in a different way (that is interesting), the subject, maybe do some activities.	TE5: I will divide the students into small groups and give them each a little topic and ask them to do a group discussion. I will give them time for the group discussion. The students will do a group discussion and present what they discussed and then taking that as my beginning, I will start on my teaching.
TE3: First, I will look at the topic. I will take the students, meaning I will take the students at the	

Appendix Box 4.6: Focus group extract of how TE’s would prepare their learner-centred lessons

The growing gap in knowledge about technology between the teacher-educators and student-teachers was visible with students seen to help teacher-educators to prepare power points. The principal rued the lack of planned teacher-educator development.

For making others learn, you have to first learn yourself...and since everybody is busy with work, it is only policy that can give that kind of space.... We talk so much about continuous professional development. There is hardly any systemic plan for this ... there is no provision for study leave, there is no in-service training, there is no incentive, hardly anything for teacher-educators as such and I think we just assume that if they have got the job and they are faculty in some teacher training institute ... they just know everything.’ (Pint-93)

Planned professional development was strongly needed for the teacher-educators to be able to successfully make a shift from TCE to LCE and upgrade their knowledge.

4.2.14 Role of the principal in influencing learner-centredness in the DIET

The principal understood that all activities needed to revolve around the learner, she believed in active learning, motivating learners and fulfilling learner needs. These needed to be integrated with the teaching-learning at the DIET. There was a need to build student trust and confidence in the system, to create spaces in the timetable and environment for student autonomy and risk-taking, to enable student-teachers to understand their own stand on different issues, have a forum to correct misconceptions, be critical and creative, as recommended in the NCFTE (2009).

INFLUENCE OF DIVISION OF LABOUR IN THE DIET

4.2.15 Loaded work roles of teacher-educators in the DIET

The work of the teacher-educator needed to be rationalised and prioritised urgently. Besides teaching in the pre-service BTC (Basic Teacher Certificate) programme they also trained in-service teachers at the Block level, mentored student-teachers and practising teachers, and were responsible for district wide para-teacher training. Besides these they wrote development reports, baseline surveys, content and curriculum development and state level expert consultations.

Beyond the academic work, the teacher-educators were assigned professional jobs to earn funds to make the DIET more sustainable by holding workshops, developing and implementing questionnaires, aiding other governmental and non-governmental organizations. As a result, quite often the teacher-educators found their time double booked. BTC classes were the first to be dropped and learning suffered. There was a lack of preparation for classes, a hurry to complete work and compromise- all of this affected the learner-centredness of the teacher-educator because learner-centred classes need immense preparation, concentration and follow up.

INFLUENCE OF TOOLS AND SIGNS

4.2.16 Large number of students

With the pressure to create more trained teachers, the intake of students to the BTC programme at the DIETs was increased to 200 new students each year. About 160 were observed during the study. More students were expected to join later. The accepted number to conduct learner-centred classes with one teacher, in developed countries is 25. In India and other developing countries, the accepted number is 50. 200 was too large a number by any standards for a teacher-educator to teach in a learner-centred way, single-handedly, or even with two teacher-educators in a class.

4.2.17 Facilities at the DIET

At the DIET, in the crammed classroom, described earlier, It was difficult to conduct group work or any other collaborative activity.

The classroom had a white board and facilities for a power point presentation. The writing on the white board was not visible from the end of the classroom. Not all teacher-educators at the DIET, like TE1, could make and project power point presentations in class

without additional help. When things went wrong, in the observed class, the teacher-educator simply skipped showing the presentation.

To be heard by all, the teacher-educator spoke to the class through a cordless microphone. Asking a question took determination from a student, to interrupt the teacher-educator, come up to the microphone and speak. Even when the teacher-educator conducted a discussion oriented class only the very confident students answered questions. No one asked any questions. This made class interaction and group participation, an important part of learner-centred pedagogy, very difficult to implement in the classroom.

4.2.18 Reflecting on analysis: DIET influences

The circumstances at the DIET as shown in Figure 4.1 and discussed in this section influence all teacher-educators at the DIET in a similar way and so the interpretation from this section can be applied to all the teacher-educators at this DIET.

Summing up the influences, the environment of the DIET needed to be conducive for both student-teachers and teacher-educators to conduct and learn in a learner-centred way. The influence of the institution needed to be acknowledged and actioned on through policy, the NCFTE (2009), and the necessary support in terms of systems, people development and facilities given to the DIETs. Teacher-educators could not be expected to transform themselves from being secondary school teachers to learner-centred teacher-educators through merely a change in job assignment. The roles and responsibilities of the teacher-educators would need to be rationalised and time and space incorporated for not only development but time to prepare and support LCE. The environment and facilities at the DIET needed to be reworked to provide a secure learner-centred environment.

The teacher-educators, along with the principal, needed to experience and be provided space, time and planned development opportunities to be able to shift paradigms in their teaching and conception of an academic system. The teacher-educators need to understand LCE pedagogies and teach adult student-teachers in a learner-centred way, so that their student-teachers, in turn, become learner-centred primary school teachers. In doing this, the school experience of the primary school child would improve.

Reflecting further on this method of analysis, it would be possible to study the circumstances at other DIET in a similar manner. Naturalistic generalisation (Stake, 1978) can be applied to findings from the study of teacher-educators at this DIET to understand similar situations at different DIETs (Hammersley, 2007, pp187). Similar findings emerging

repeatedly for teacher-educators' learner-centredness across different DIETs could make for a robust research outcome. It could also be that multisite research done on teacher-educators at different kinds of DIETs e.g. rural or urban settings might yield similar research outcomes in rural areas that could differ from a different set but similar outcomes from urban areas. This would again have valuable implications for policy and practice.

4.3 CONCLUSION

The good intentions of the teacher-educator seen in her teacher conceptions got diluted through the process at the DIET. Her individual learner-centredness was weakened as she reached her 160 strong crowded classroom, varied student mix and lack of knowledge of learner-centred techniques. The DIET rules contributed to further dilution through the lack of a change management plan and a teacher-educator's development plan. The implications of this small case study are discussed further in Chapter 5.

5 DISCUSSION AND IMPLICATIONS

INTRODUCTION

This study of a teacher-educator at a DIET in India reveals gaps between policy intention and preparedness for implementation, to adopt a more process based constructivist, learner-centred pedagogy.

The study indicates a need for further research and development concerning the gaps. These are:

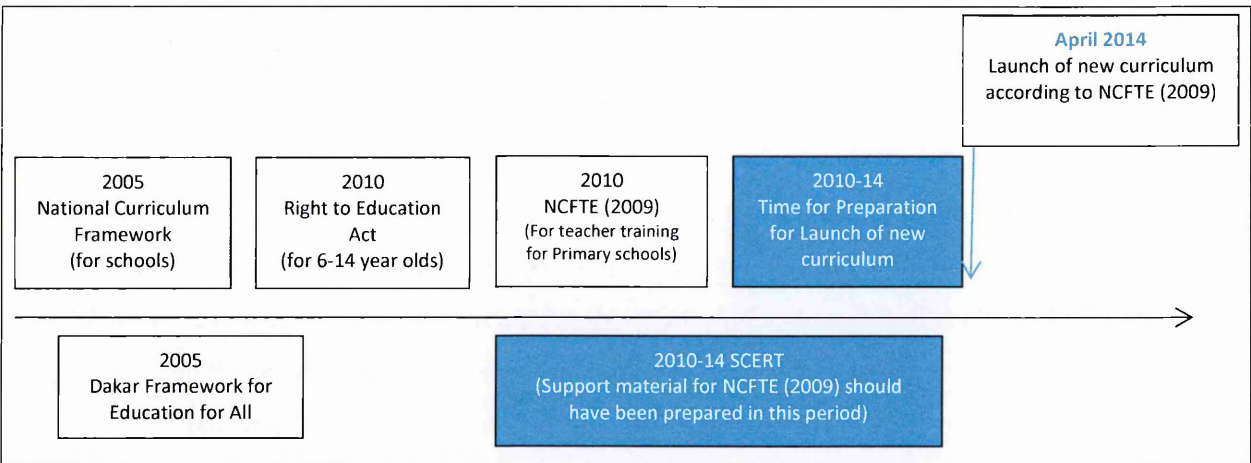
- a. A change management plan including all stakeholders and systems at the DIET
- b. A systemic restructuring of the DIET to create a supportive learner-centred environment to implement the policy
- c. ‘Deep preparation’ of the leading change-makers in the DIET environment- the principal and teacher-educators
- d. Greater comprehension of the pedagogical complexity of a teacher-educator’s role for learner-centred primary education and learner-centred teacher education.

In this chapter, each of these requirements will be explained in turn.

5.1 INTRODUCTION OF NCFTE (2009) AND PLANNED CHANGE MANAGEMENT

The new syllabus in accordance to NCFTE (2009) was finalised in 2010. The DIETs were mandated to implement the syllabus in 2014 in their pre-teacher training BTC programme. The first few days of this implementation were observed during the period of this research. Very little preparation for implementation was visible at the time, nor was there evidence that preparation had taken place during the four year period before the launch of the new NCFTE syllabus at the DIET.

Figure 5.1: The timeline showing key events before implementing the new policy at the DIET



The proposed change, if any, seemed to have been initiated from the top leadership at the centre, led by policy mandates rather than a more adaptive model involving the stakeholders on the ground. As recommended by O'Sullivan:

'Top down models are no longer considered the most appropriate models. They are rigid and focus mainly on inputs and outputs. They ignore the actual process of change, most notably the complexities of implementation. Adaptive models, underpinned by the notion of flexibility, have emerged to address this. They respond to local conditions and focus more on implementation' (2004:599).

A concerted effort to increase local ownership of the changes set out in the policy is needed. Contextual issues and capabilities need to be better understood and this will require future research. However, some positive developments relating to learner-centredness were observed at the DIET giving an indication that there was potential for further progress. In the pre-teaching BTC programme there is already:

- An emphasis on training student-teachers to learn how to teach, as opposed to teaching them subject content. This latter is the case in some developing countries struggling with LCE implementation
- An acknowledgement of the importance of general and subject specific pedagogy
- Teaching practice is carried out both inside and outside the DIET, with a strong process in place
- An emphasis on developing interesting teaching-learning material
- Active teaching orientation
- Inclusion of discussion in the DIET classrooms of issues faced by primary school children
- With teacher-educators, experimentation and development of individual styles of teaching evolving towards greater learner-centredness were observed, for example, interactive lectures (TE1), group work (TE5), or problem-solving class issues by asking the students about their problems and then trying to resolve them (TE3).

At the DIET very few teacher-educators were aware of the new curriculum and even fewer understood the pedagogical implications of the change. Implementing policy is always a challenge; implementing LCE calls for a paradigm change in the understanding of leaders and teacher-educators. So, guidelines for the direction of academic change and priorities of the DIET need to be developed so that the effort of the head and teacher-educators moves the DIET in the direction of the envisaged change. Systems need restructuring and

strengthening to support the teacher-educators to develop and work in the direction of the change.

It is the opinion of the principal, the aim of the DIET is to provide educational support for district primary schools. The DIET studied had taken on goals beyond the support of primary education. For example, in a bid to raise funds for self-sustenance, the DIET was seen to take on public-private partnerships to obtain computer facilities, and to undertake consultancy projects and provide support to other government organizations and their agendas. This divided the time and attention of the teacher-educators resulting in muddled priorities. The emphasis and direction of systemic change at the DIET was not always clear.

5.2 DEVELOPING A CONSTRUCTIVIST ENVIRONMENT AT THE DIET

The decision to change to a more learner-centred system was mandated by policy. In order to build a more constructivist atmosphere at the DIET, different systems, processes and appropriate facilities need to be developed. The nature of these requirements can be subject of future research in the Indian context.

Basic rules at the DIET such as those covering attendance, meeting academic commitments, and communication, need to be reworked to promote greater ownership and trust among stakeholders.

The material tools for mediation, the facilities at the DIET, need to be revisited and allocated in new ways to meet local requirements. Existing teacher-educator to student-teacher ratio was 1:200 and 1:160 -too high for learner-centred teaching. 'The class which has 40 pupils is manageable unlike the one with 50 pupils' (A student-teacher, Malawi, Mtika and Gates, 2010:397).

This study has found that overcrowded classrooms provide a challenge to the application of learner-centred pedagogy. Similar to what is written in literature, here too, large class sizes and shortage of space led to teacher-educators reverting to using convenient, conventional, teacher-led methods in which the students stayed passive with minimal movements (Mitika and Gates, 2010). The JRM report (2013) emphasised the need for encouraging self-learning in a constructivist paradigm. For this they reported the need for facilities like basic seating and furniture, a functioning resource centre, along with computers and internet facilities as integral to supporting the enhancement of teacher-educator skills and knowledge (p9).

5.3 TRAINING, DEVELOPMENT AND ROLE DEFINITION FOR THE PRINCIPAL AND TEACHER-EDUCATORS

In the previous chapter, analyses of how the DIET environment influences learner-centredness showed that more thought needs to be given to developing the community at the DIET. The research indicated that the principal should be provided with the opportunity to understand the implications of pedagogical change to constructivism. The teacher-educators need to be familiar with teaching children and adults. The process for recruitment of the principal and the teacher-educators needs to be revisited and redesigned. The selection parameters of student-teachers should take into account the aptitude and motivation of the applicant to become a primary teacher.

A learner-centred teacher's training programme in a country used to authoritarian teaching requires a huge paradigm change in its teacher-educators.

'... a shift in the teaching learning paradigm ...will require that teachers learn a much more complex and varied repertoire of teaching skills than has been necessary in the past.'
(Mulkeen et al., pp.26-7 in Vavrus, 2009:304).

The role of the teacher-educator as an agent of change influencing the health of the teacher-training system needs to be acknowledged and given due importance. Working towards this, teacher-educator development needs to be thought through more deeply. Changing teacher-educators to become more learner-centred is a slow process. Each teacher-educator in a teacher-education institute is different and adapts the constructivist or learner-centred style of teaching to different degrees according to the existing practice.

Because of the high workload of the teacher-educators, there was often little time left to prepare for classes and sometimes it was difficult even to hold the classes which were scheduled. A class missed was not replaced. The students were expected to make up what they had missed.

5.4 CONTEXTUALISED LEARNER-CENTRED TEACHER EDUCATION

The expectation that secondary school teachers will know all that a teacher-educator needs to know when a new pedagogical framework has to be implemented is overly optimistic. The teacher-educator needs to understand LCE for primary children and their learning needs and have experience in teaching primary classes. Because the teacher-educator teaches student-teachers who are adult learners, the teacher-educator needs to additionally have an adequate knowledge of andragogy and apply it in a learner-centred way to adult student-teachers while training them to do the same with children catering to

their special needs. Critical to enabling teacher effectiveness is the quality of teacher-education provided by teacher-educators. If the teacher-educator is unable to do this, and instead uses rote methods to teach learner-centredness, student-teachers are not going to learn to be learner-centred (O'Sullivan, 2004; Vavrus, 2009, Mtika and Gates, 2010) At the DIET the teacher-educators either need to be recruited with this experience or need to be educated and developed in a special way. This makes the role of a teacher-educator complex and layered in terms of pedagogic domains of knowledge, making it a special case of learner-centred education called here as Learner-Centred Teacher Education (LCFTE).

Indian society is a traditionally hierarchical society which is authoritative towards its children. Being able to teach student-teachers to be responsive and successful in this situation is difficult. More research is needed to understand how to contextualise and localise learner-centred teaching for a primary classroom. e.g. What language should a primary school child be taught in the beginning? The choice is between the local and state language. What language should be continued? When should English be introduced? Can Science be taught in the state language initially? Added to this is the complexity of educating student-teachers who are not familiar with any one of the languages- local, Hindi or English. This is a complex and peculiarly Indian issue and needs to be addressed by developing LCFTE for the Indian context. Much research is needed to identify these issues and propose suggestions based on evidence.

Looking at the training of teacher-educators from the student-teachers' point of view might be a step in this direction. How well are BTC graduates able to function in the field? There were indications during the research that the system of preparing lesson plans at the DIET was not effective at the actual government primary schools where the field conditions are difficult and often severely resource-starved. These conditions were a shock to some student-teachers met during the data collection. They found it difficult to function in such an environment. The students need to be prepared to face this reality. With the requisite knowledge the teacher-educators will be better equipped to build the bridges which will take the student-teachers from their current constructs to deal innovatively with their future professional situations in low-resource, government primary schools.

This research has brought out the importance of cognitive aspects of LCE and the importance of the local context. Revisiting Schweisfurth's definition of LCE, I would adapt her definition of learner-centredness to the following:

‘LCE is a pedagogical approach which provides conditions for effective, deep and meaningful learning through active co-construction of knowledge, using whatever activities, techniques and skills are needed to best bring this about, within the realities of the contexts in which teachers teach and students learn. What is learnt and how are shaped by learners’ needs, capacities, interests and motivation.’ (Adapted from Schweisfurth, 2013:12)

5.5 CONCLUSION

The research showed the key teacher-educator to be a sensitive and responsive to student needs, both towards the primary school children and student-teachers, within the constraints of the size of cohort, the DIET system, and a lack of knowledge about learner-centredness. There seemed to be a few more teacher-educators like her.

At the DIET, the implementation challenges of LCE found in literature were repeated in reality. These included overcrowded classrooms, a ratio of 1:160, lack of LCE training and experience, lack of relevant experience with primary school children and adults and an authoritarian culture. Difficulties in changing the fixed knowledge paradigm and providing greater support to student autonomy and loosening control over the students and their knowledge were also witnessed.

This study indicated a lack of teacher-educator development and an adaptive, local, change management plan to establish the new constructivist, learner-centred pedagogy at the DIET involving teacher-educators, the principal, and student-teachers.

My personal journey at the end of this research study reminded me that research is an iterative process. As I re-read the completed thesis, and more papers with greater understanding, I found myself interpreting things a little differently from the stated positions in the thesis, questioning the logic of learner-centredness in its current form for the Indian situation, wondering if a more contextual form of learner-centredness would be better suited. I would now like to do the same research about teacher-educators from the standpoint of the student-teachers also rather than just the teacher-educators. The journey continues.

REFERENCES

- Agnihotri, R.K. (2010) *Hindi, an Essential Grammar*, London and New York, Routledge.
- Andrew, L. (2010) 'Comparison of teacher-educators' instructional methods with the constructivist ideal', *The Teacher-educator*, vol. 43, no. 3, pp. 157-184.
- Azim Premji Foundation, (2010) *Status of District Institutes of Education and Training: A Brief Report on the State of DIETs in India*, [Online], September 2010, Azim Premji Foundation. Available at www.azimpremjiifoundation.org (Accessed 2 December 2013).
- Batra, P. (2009) *Reclaiming the Space for Teachers to Address the UEE Teaching-Learning Quality Deficit: Education for All - Mid Decade Assessment*, [Online], New Delhi, National University of Educational Planning and Administration (NUEPA). Available at <http://www.educationforallinindia.com/Reclaiming-the-Space-for-Teachers-to-Address-the-UEE-Teaching-2.pdf> (Accessed 4 June 2014).
- British Educational Research Association (BERA, 2011) *BERA Ethical Guidelines for Educational Research*, London, BERA
- Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, vol. 3 no. 2, pp. 77-101.
- Buckler, A. (2012) *Understanding the Professional Lives of Female Teachers in Rural Sub-Saharan African Schools: A Capability Perspective*, unpublished PhD Thesis, Milton Keynes, The Open University.
- Chawla-Duggan, R. (2007) 'Breaking out, breaking through: accessing knowledge in a non-western overseas educational setting- methodological issues for an outsider', *Compare*, vol. 37 no. 2, pp. 185-200.
- Chisholm, L. and Leyendecker, R. (2008) 'Curriculum reform in post-1990s sub-Saharan Africa', *International Journal of Educational Development*, vol. 28 (2008), pp. 195-205.
- Cochran-Smith, M. (2004) 'The Problem of teacher education', *Journal of Teacher Education*, vol. 55 no. 4, September/October 2004, pp. 295-299.
- Conceição, S.C.O., Samuel, A., and Filz, J. (2013) *Issues with the Use of Cultural-Historical Activity Theory in Adult Education*, [Online], 2013 Midwest Research-to-Practice Conference in Adult, Continuing, & community Education, Missouri, Lindenwood University. Available at <http://www.lindenwood.edu/r2p/docs/ConceicaoSamuelFilz.pdf> (Accessed 1 September, 2014).
- Coultas, J.C. and Lewin, K.M. (2002) 'Who becomes a teacher? The characteristics of student teachers in four countries', *International Journal of Educational Development*, vol. 22 no. 3-4, pp. 243-260.
- Denscombe, M. (2007) *The Good Research Guide*, 3rd edn, Maidenhead, UK, Open University Press.
- Dyer, C., Chowksi, A., Awasty, V., Iyer, U., Moyade, R., Nigam, N., Purohit, N., Shah, S. and Sheth, S. (2004) *District Institutes of education and Training: A Comparative Study in Three Indian States*, [Online], Research for Development (R4D), Educational Paper No. 55, London, Department for International Development (DFID). Available at <http://r4d.dfid.gov.uk/PDF/Outputs/ImpAccess/paper55.pdf> (Accessed 10 December 2013).

- Ely, M. with Anzul, M., Friedman, T., Garner D., McCormack, A., and Metz, S. (1991) *Doing Qualitative Research: Circles with Circles*, London, Routledge.
- Gomm, R., Hammersley, M., and Foster, P. (eds) (2000) *Case Study Method: Key Issues, Key Texts*, London, Sage Publications.
- Hardman, F., Abd-Kadir, J. and Smith, F. (2008) 'Pedagogical renewal: improving the quality of classroom interaction in Nigerian primary schools', *International Journal of Educational Development*, vol. 28, no. 1, January 2008, pp. 55–69.
- Harmelen, U. V. (1998) 'Is learner-centred education, child centred?' *Reform Forum: Journal for Educational Reform*, vol. 8 September 1998 [Online]. Available at <http://www.nied.edu.na/journals/journal8/Journal%208%20Article%201.pdf> (Accessed 10 February, 2014).
- Hammersley, M. (2008) 'Troubles with triangulation' in Bergman, M. M. (ed) *Advances in Mixed Methods Research*, London, Sage, pp. 22-36.
- Hammersley, M. (2009) Module A: An introduction to social research, MRes Programme [Online]. Available at <https://learn2.open.ac.uk/mod/subpage/voew.php?id=339252> (Accessed 10 January, 2014).
- Jordan, L., Bovill C., Othman, S.M., Saleh, A.M., Shabila, N.P., and Watters, N. (2013) 'Is student-centred learning a Western concept? Lessons from academic development programme in support of student-centred learning in Iraq', *Teaching in Higher Education*, vol. 19 no. 1, pp. 13-25.
- Lasky, S. (2005) 'A Sociocultural approach to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform', *Teacher and Teacher Education*, vol. 21 (2009) pp.899-916.
- Lewin, K.M. (2011) *Making Rights Realities* [Online], Consortium for Research on Educational Access, Transitions and Equity (CREATE), Department for International Development (DFID). Available at http://r4d.dfid.gov.uk/PDF/Outputs/ImpAccess_RPC/Making-Rights-Realities-Keith-Lewin-September-2011.pdf (Accessed 10 June, 2014)
- Lewin K. M. and Stuart J. M. (2003) 'Insights into the policy and practice of teacher education in low-income countries: the multi-site teacher education research project', *British Educational Research Journal*, vol. 29 no. 5, pp691-707.
- McCabe A. and O'Connor, U. (2014) 'Students-centred learning: the role and responsibility of the lecturer', *Teaching in Higher Education*, vol. 19 no. 4, pp.350-359.
- Mukund, K. (1988) 'The Hoshangabad Science Teaching Programme', *Economic and Political Weekly*, vol. 23 no. 42, pp2147-2150.
- Mincu, M. (2013) *Teacher quality and school improvement: what is the role of research?* [Online], Research and Teacher Education: the BERA-RSA INQUIRY, Action and Research Centre (RSA), British Educational Research Association BERA. Available at <http://www.bera.ac.uk/wp-content/uploads/2013/12/BERA-Paper-6-Teacher-Quality-and-School-Improvement.pdf> (Accessed December 2013)
- MHRD, GoI, (Ministry of Human Resources and Development, Government of India) (2000) *The EFA 2000 Assessment: Country Reports* [Online], India, MHRD. Available at

<http://www.unesco.org/education/wef/countryreports/india/contents.html> (Accessed 16 June, 2014).

MHRD, GoI, (2012) *Vision of Teacher Education in India Quality and Regulatory Perspective* [Online], Report of the High Power Commission on Teacher Education Constituted by the Hon'ble Supreme Court of India, vol.3, India, MHRD. Available at <http://www.teindia.nic.in/Files/TE-India-Report/JVC-Vol-1.pdf> (Accessed 28 June, 2014).

MHRD, GoI, (2013a) *Annual Report 2012-13* [Online], India, MHRD. Available at <http://mhrd.gov.in/documents/term/82> (Accessed 14 June, 2014)

MHRD, GoI, (2013b) *Joint Review Mission for Teacher-education: Uttar Pradesh* [Online] India, Report commissioned by the Ministry of Human and Resource Development. Available at http://www.teindia.nic.in/Files/jrm/JRM_Reports/JRM_Report_UP.pdf (Accessed June 28, 2014)

Mtika, P., and Gates, P. (2010) 'Developing learner-centred education among secondary trainee teachers in Malawi: the dilemma of appropriation and application', *International Journal of Educational Development*, vol. 30 no. pp. 396-404.

Mukund, K. (1988) 'The Hoshangabad Science Teaching Programme', *Economic and Political Weekly*, vol. 23 no. 42, pp.2147-2150.

Murray, J. and Male, T. (2005) 'Becoming a teacher educator: evidence from the field', *Teaching and Teacher Education*, vol. 21 (2005), pp. 125-142.

NCF (2005) *National Curriculum Framework 2005* [Online], India, NCERT. Available at <http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf> (Accessed 4 December 2013)

NCFTE (2009) *National Curriculum Framework for Teacher Education 2009-10* [Online], India, NCERT. Available at http://www.ncte-india.org/publicnotice/NCFTE_2010.pdf (Accessed 10 January 2014).

NPE (1992) *National Policy of Education* [Online], India, NCERT. Available at http://www.ncert.nic.in/oth_anoun/npe86.pdf (Accessed 12 August 2014)

O'Sullivan, M. C. (2004) 'The reconceptualisation of learner-centred approaches: a Namibian case study', *International Journal of Educational Development*, vol. 24 (2004) pp. 585-602.

O'Sullivan, M. C. (2010) Educating the teacher-educator- a Ugandan case study, *International Journal of Educational Development*, vol. 30 (2010), pp. 377-387.

Raina, V. (2011) 'Between Behaviourism and Constructivism', *Cultural Studies*, vol. 25 no. 1, pp. 9-24.

Richardson, V. (2003) 'Constructivist Pedagogy', *Teachers College Record*, vol. 105, no. 9, pp. 1623-1640.

Roth, W. and Lee, Y. (2007) 'Vygotsky's neglected legacy: Cultural-Historical Activity Theory', *Review of educational Research*, vol. 77 no. 2, pp. 186-232.

Sarangpani, P.M., 2010, 'Quality concerns: national and extra-national dimensions', *Contemporary Education Dialogue*, vol. 7 no. 1, pp. 41-57.

- Scheyvens, R. and Storey, D. (2003) *Development Fieldwork: A Practical Guide*, London, Sage Publications
- Sheshagiri, K. M. (2013) 'Quality in education – reflections on its history and contemporary concerns', [Online], Academia.edu. Available at https://www.academia.edu/251309/Quality_in_Education_-_reflections_on_its_history_and_contemporary_concerns (Accessed 10 December 2013).
- Schweisfurth, M. (2011) 'Learner-centred education in developing country contexts: from solution to problem?', *Journal of International and Comparative Education*, vol. 2, no. 1, pp. 425-432.
- Schweisfurth, M. (2013) *Learner-centred education in international perspective*, London and New York, Routledge.
- Sikoyo, L. (2010) 'Contextual challenges of implementing learner-centred pedagogy: the case of the problem solving approach in Uganda', *Cambridge Journal of Education*, vol. 40 no. 3, pp. 247-263.
- Sriprakash, A. (2010) 'Child-centred education and the promise of democratic learning: pedagogic messages in rural Indian Primary Schools', *International Journal of Educational Development*, vol. 30 no. 3, pp. 297-304.
- Swann, J. (2009) 'Transcribing spoken interaction' in Hunston, S. and Oakley, D. (eds), *Introducing Applied Linguistics: Key Concepts and skills*, London, Routledge, pp. 163-176.
- Tabulawa, R. (2003) 'International aid agencies, learner-centred pedagogy and political democratisation: a critique', *Comparative Education*, vol. 39 no. 1, pp. 7-26
- Tallent, R. J. and Crowley, K. (2012) 'Facilitating creativity in a non-creative world: helping students develop critical/ creative thinking skills using andragogy in the classroom', *The Florida Communication Journal*, no. 40, Fall, 2012, pp. 23-34.
- The Open University (2003) *Research Methods in Education, Masters Programme in Education Handbook*, Milton Keynes, The Open University.
- The Open University (2014) *Ethics Principles for Research Involving Human Participants*, Milton Keynes, The Open University
- Thomas, E. (1997) 'Developing a culture –sensitive pedagogy: tackling a problem of melding 'Global Culture' within existing cultural contexts', *International Journal of Educational Development*, vol. 17, no. 1, pp. 13-26.
- Thomson, P. (2013) 'Learner-centred education and 'cultural translation'', *International Journal of Educational Development* vol. 33 (2013), pp. 45-48.
- Trent University (2014), *Theoretical Frameworks*, Trent University [Online]. Available at <http://www.trentu.ca/history/workbook/theoreticalframeworks.php> (Accessed 3 September 2014).
- UNICEF (1996) *Child Friendly Schools Initiative Education News* [Online], UNICEF, no. 16 (April 1996). Available at http://www.unicef.org/publications/files/Child_Friendly_Schools_Manual_EN_040809.pdf (Accessed 30 June, 2014).

Vavrus, F. (2009) 'The cultural politics of constructivist pedagogies: teacher education reform in the United Republic of Tanzania', *International Journal of Educational Development*, vol. 29 (2009), pp. 303-311.

Yamagata-Lynch, L.C. and Haudenschild, M. T. (2009) 'Using activity systems analysis to identify inner contradictions in teacher professional development', *Teaching and Teacher Education*, vol.25 (2009) pp. 507-517.

Zeepedia.com (2014) *Projective tests* [Online]. Available at http://www.zeepedia.com/read.php?the_projective_personality_tests_the_rorschach_clinical_psychology&b=84&c=20 (Accessed date 10 May, 2014)

Appendix 2.1: Representative analysis of literature related to learner-centred education in developing country contexts

Author and Journal article with publishing details	Focus	Context and Methodology	Strengths as related to my research	Weaknesses as related to my research	About the author and further reading links or topics
Margo O'Sullivan, 2004 The reconceptualization of learner-centred approaches: a Namibian Case study, <i>International Journal of educational development</i> , (A teacher-educator; academic, woman, Mary Immaculate College, Ireland)	<p>In brief: The author is also part of the study that focuses on the role teachers in Namibia in a rural area play to implement policy mandated learner-centred pedagogical reforms. The study provides a history before LCE was introduced in Namibia and highlights the implementation challenges of the policy reform. The classroom realities and their own lack of preparedness and ability to carry out the reforms are not taken into account when policy is drawn leading to implementation failure.</p> <p>The study goes on to understand, through action research, the complexities of implementation, finally coming up with guidelines for introducing learner-centredness in simple ways through 'learning-centred strategies' that the teachers can observe and also reflect further on improving in their practices.</p> <p>More detail: LCE was promoted in developing countries like Namibia as an antidote to the existing teacher-centred education (TCE) and a way to cater to learning needs of all learners in an integrated manner rather than the segregated system (One for white and elites and another system for poor blacks) of apartheid.</p> <p>'The Namibian Basic Education must support the actual processes of individual learning rather than continue the colonial teacher-centred Bantu education, with an emphasis on control, rigid discipline, parrot-like teaching, and negative assessment principles' (Nujoma, President of Namibia, cited in Snyder, 1991:5 from O'Sullivan, p587)</p> <p>The Powden report in 1960s introduced learner-centred education to UK. At about the same time the colonialists at Namibia introduced the Bantu (apartheid influenced) system of education in Namibia.</p> <p>The paper describes the history of introduction of learner-centred education in Namibia in the 1990s post-independence. It goes on to describe an INSET project funded by the British Government for English language teacher development.</p> <p>Structure: Introduction: History of LCE, to replace TCE, Why LCE? The research project, its rationale What the study was, what conclusion it lead to. Background to the introduction of learner centred education The case study Action research Data collection The implementation of LCE The reconceptualization of LCE approach Implications of the case study</p> <p>Findings: Though teachers said they approved of learner-centred teaching, the author found rote method was the main method used (87 lessons observed) The author circulated a questionnaire in which teachers had to identify learner-centred methods from the options given. The results showed that the teachers were not clear about learner-centred methods.</p> <p>In a second activity the author checked the teachers understanding of learner-centredness as enunciated in policy documents. The teachers' answers showed that they did not understand the meaning of words like 'facilitate', 'analyse', 'synthesise'. The author concluded that it was beyond the professional capabilities of the teachers to execute learner-centredness in their classrooms.</p>	<p>Context/ setting of research: 31 primary schools in a rural district in Namibia following an LC curriculum</p> <p>Methodology 145/200 teachers were participants in 31 primary schools. 99 lower primary and 46 senior primary English teachers. Namibian educational reformers found 76% teachers were unqualified with 27% under-qualified</p> <p>The case study was built around data collected over a 3 year INSET study. The author researched into the development of effective INSET strategies for unqualified teachers.</p> <p>3 interview approaches: semi-structured, unstructured interviews and informal conversations: structured observations and semi-structured observations, assessment of learners and policy documents.</p> <p>Action research in the study subscribed to:</p> <ul style="list-style-type: none"> Improve practice and contribute to theory; Integrate research and practice; Be action oriented, exploratory, situational, flexible, adaptive, systematic and rigorous. <p>A quote for action research: Elliott (1991: 69) defines an action research approach as: '... the study of a social situation with a view to improving the quality of action within it.'</p> <p>How did the study use action research? The study accessed the contexts within which the teachers worked, to collect training needs in relation to the teachers' efforts to implement English Language Teaching (ELT) reforms, and as a result develop teaching strategies which would best meet their needs.</p> <p>Analysis was done through thematic analysis with categorising and coding.</p> <p>A variety of triangulation techniques used to address the validity issues. – using different data collection methods to seek answers to the same questions. The TE observed 87 lessons.</p>	<p>The paper is set in a situation that is in many ways similar to the Indian situation.</p> <p>For example, the author is part of an in-service training for rural, under-resourced schools that predominantly use teacher-led methods for teaching. Policy has mandated a learner-centred approach to teaching. The paper describes lack of many issues like large numbers of students, insufficiently trained teachers working from a fixed knowledge paradigm, limited resources, cultural factors, poverty, etc.</p> <p>The author touches on the distance between policy and implementation and offers a way to bridge this gap through 'adaptive change methods' and action research instead of a top down approach. Both these are demonstrated through the research.</p> <p>The author is a TE herself and experienced in learner-centred teaching, and so provides a practitioners point of view to the problem. Her understanding of teacher practices and how she addressed changes in these to be more learner-centred is interesting and localized. Because of her deep understanding of issues in teaching, she is able, with help from participants, to identify what is meant by learner-centred education in the situation under study. She recommends a similar approach to each learning situation around the globe. This is as far as her study can be generalized. In the approach to understanding learner-centredness, Action research provides a</p>	<p>The author's initial methodology of checking teacher learner-centredness seems to be very language based. She says that the teachers do not understand words like 'synthesis', 'facilitation', etc. The author draws the conclusion that teaching in learner-centred ways is beyond the capacity of the under-trained teachers. Of the points described by the author about the teachers, only points 5 and 6 show a real lack of learner-centredness which actually points to lack of training rather than inability to conduct learner-centred classes.</p> <ol style="list-style-type: none"> 76% of the 145 teachers are unqualified None of the teachers knew how to write a scheme of work. Very few teachers had written lesson plans for lessons observed. The few lesson planning books looked at had unclear plans. Most teachers claimed to be implementing the learner-centred reforms, although lesson observations refuted this claim. Rote learning was the main teaching method used Most teachers had never received INSET training Teachers' English level is average. The medium of instruction from grade 1 was English. Their living conditions were generally poor. <p>It is possible that the teachers might actually use learner-centred techniques without knowing the terms for them or without realising that they are concepts in teaching. Or the teachers might know of ways to be more learner-centred but are unable to practice these methods because of the circumstances in which they operate, and so</p>	 <p>Further reading: Top down models: Chin, R., Benne, K.D., 1969. General strategies for effecting changes in human systems. In: Beninis, W.G., Benne, K.D., Chin, R. (Eds.), The Planning of Change. Second edition, Holt, Rinehart and Winston, New York.</p> <p>Van den Berg, O., 1987. INSET and Assumptions about the Nature of Change. In: Ashley, M., Mehl, M.C. (Eds.), INSET in South Africa. Issues and Directions. Teacher Opportunity Programmes), Cape Town.</p> <p>Adaptive models: Wellington, J.H., 1967. S.W. Africa and its Human Issue. Oxford University Press, London.</p> <p>Verspoor, A., 1989. Pathways to change: Improving the quality of education in developing countries, World Bank Discussion Papers.</p> <p>Vulliamy, G., Lewin, K., Stephens, D., 1990. Doing Educational Research in Developing Countries. Falmer Press, Basingstoke, UK.</p> <p>Walker, M., 1994. Professional development through action research in township primary schools in South Africa. International Journal of Educational Development 14 (1), 65–73.</p> <p>Support for formalistic teaching: Guthrie, G., 1990. In the defence of formalistic teaching. In: Rust, V.D., Dalin, P. (Eds.), Teachers and Teaching in the Developing. World Garland, New York.</p>

<p>The author found that teachers had problems with adopting a constructivist viewpoint. They viewed knowledge as fixed, objective, removed from the learner, and needed to be transmitted by the teacher. There were lack of resources and large numbers in each class. Conditions in which LCE cannot be implemented, according to the author. Lack of exposure of the students to different kinds of learning like discovery and problem based was also a barrier. In a society where the individual is subsumed by the group, LCE is difficult to implement because it is very individually oriented- a concept which sits well in western societies, but not in Namibia where asking questions or thinking critically is not encouraged in children.</p> <p>Another quote in Ashanti illustrates this well: "Wo ba saw asa-bone a, se no se, "wo a nse nye fe", na nse no se "okra tet gu mu". (When your child dances badly, tell him, saying, "your dancing is not good" and do not say to him "(little) soul, just dance as you want to") (Rattray, 1958).</p> <p>The author trained the teacher in simple, doable learner-centred techniques which were listed and practiced. She reconceptualised the approach to learner-centredness. As a result the teachers started to view 'good teaching' as LCE- whichever teaching methods brought about effective learning.</p> <p>As a result teachers started using a variety of methods other than rote. This in turn improved reading levels. The author found a direct correlation between teacher attendance to the number of workshops she conducted and vocabulary of the students.</p> <p>Implications:</p> <p>The case study discussed in this article has implications for three broad areas:</p> <ol style="list-style-type: none"> 1. The Namibian educational reform process, 2. The appropriateness of LCE in Namibia and 3. The usefulness of action research in developing countries. <ol style="list-style-type: none"> 1. The Namibian educational reform process: reforms were not being implemented according to policy because of failure to consider realities at the 'classrooms', and with the teachers. 2. Rather than a top down, and adaptive model was tried to build teacher capacity to implement LCE. 3. Teachers are going to be in control of classes/ students. It is easier for them to assess if learning has taken place. So more learning-centred skills will be easier to develop in teachers- ones they can assess for themselves for teaching effectiveness. So, according to the author, a more learning-centred approach would work better in which learner-centred techniques are introduced appropriate to the classroom situation. <p>Action research provides an effective mode to come up with appropriate pedagogical approaches for the specific context. Action research was used to explore the effectiveness of various approaches to learning. The researcher hypothesised about the effectiveness of particular learning-centred skills, put her hypothesis into action, and monitored and reflected. This led to the development of effective learning-centred skills.</p>		<p>rigour to the process of 'trial and error' and 'adaptation' and enables the development of strategies appropriate to the context. Each of the strategies can be tested by checking for effective learning and so the term- 'learning-centred skill' instead of 'learner-centred'. This would help to weed out a one-way-fits-all learner-centred education approach which may emerge from the North and be applied in the South.</p> <p>The study has involved the participants and gets their views through action research.</p> <p>I am interested to learn how people use action research in their research. In this study action research has been used to understand the situation and collect appropriate doable teaching strategies, emanating from the participants. The study seeks an adaptive and participative method to implementation changes.</p>	<p>choose to be teacher-led. In the research one of the teacher comments on how what she now realises that what she thought is 'good teaching' is learner-centred teaching.</p>	<p>(Look up further: Ravi and Rao's (1994: 37) work on the Andhra Pradesh Primary Education Project raised the same concern: 'the ability of the teachers to grasp fully the demands of activity-based learning and equally their abilities to translate those demands into viable classroom situations has given cause for concern.' According to the author: "A learner-centred approach 'requires a highly qualified and experienced staff' (O'Donoghue, 1994:208). It requires specific assumptions and great skill, both of which were absent amongst the teachers in the case study schools."</p> <p>(Look up another India related quote: 'Providing for individual children is an essential aspect of child-centred education, but it can be a difficult target to achieve where teachers have had little experience of noting individual's children's learning' (Ravi and Rao, 1994: 37). The author has also read a paper by Black, H., Govinda, R., Kiragu, F., Devini, M., 1993- School Improvement in the developing world, an evaluation of the Aga Khan Foundation Programme, IDA Research evaluation Report, No. 45</p>	<p>Vavrus referenced O'Sullivan's paper described above.</p>
<p>Frances Vavrus, 2009 (A teacher-educator, woman, Teacher's College, Columbia University, U.S.A.)</p>	<p>Vavrus examines the multifaceted context of teacher education reform in a teacher training college in Tanzania. The context of a college includes not only the cultural but also the economic and political dimensions of pedagogical theory and practice in African countries.</p> <p>From this study Vavrus found that excellent or good quality teaching cannot be equated to social constructivism and 'cannot be measured using a single global standard because the cultural traditions and material conditions for teaching vary considerably around the world' ...instead Vavrus proposes a 'contingent constructivism which would broaden the range of pedagogical practices in Tanzanian schools within distinctly teacher-centred classrooms.'</p> <p>Structure:</p> <p>Introduction Setting and methodology An ethnographic view of TE in a TE college: Constructivist teaching and national exams. An international standard of teaching An unexamined constructivism</p>	<p>Context/ setting of research: Social constructivism practice in a teacher training college in Tanzania. Researcher is a TE.</p> <p>Methodology 10.5 month study Badiliko, a residential, co-ed college with 2-yr diploma in Education for graduates from Form 6 (class 12) can teach O levels- now also offers a 3 year bachelor's degree for teachers who can teach O-levels, elevated to University college status, affiliated to a University (p 305). 270 students study 2 academic subjects each, Faculty for 1 term to 4 years, with 8-15 faculty 6 foreign faculty members from different</p>	<p>Tanzanian teacher college. Vavrus taught in the programme as a teacher-educator.</p> <p>Because of her background and methodology used as a participant and an observer using an ethnographic approach, Vavrus's observation in the vignettes are well supported by her deep knowledge of the situation and pedagogy. In one vignette of her own teaching she gets students to</p>	<p>The college in which this study was carried out seems to be a one-off college in Tanzania and not representative of the larger number of Government colleges. The way this study was carried out would need to be repeated across more representative schools to come up with a generalized interpretation of pedagogies used in classrooms in different parts of Tanzania. The fact that the government directives of shorter teacher-training period is likely to have occurred across the country.</p>	<p>Vavrus referenced O'Sullivan's paper described above.</p>

<p>Interpretation/ Conclusion/ Discussion</p> <p>Constructivist teaching and national exams: Contradictory</p> <p>An international standard of teaching: Different teachers from different backgrounds marked differently.</p> <p>Differences in Juma and Isaac</p> <p>An unexamined constructivism</p> <p>Conclusions</p> <ol style="list-style-type: none"> 1. Cultural politics in pedagogy which privilege certain approaches over others. 'The existence of the examination system, the material infrastructure of schools, and the length of quality of teacher education programmes limit a shift from formalism to constructivism'. If the government is going to increase the number of students in each class, continue with examinations, reduce the duration of teacher education programmes, it is unlikely that constructivism can be adopted in schools. Conditions have to be made favourable for this to happen. 2. There is a need to adopt more contingent constructivist practices. Also, according to the author, pushing a particular pedagogy leads to superficial adoption of it. The student-teachers from Badiliko college used inquiry-based and peer learning activities as well as more formalistic methods in their strongly teacher-led classes. There were degrees of variation. The paper demonstrates through a case-study of a student-teacher's classes that constructivist pedagogy application is contingent on a number of factors – sometimes the conditions in the school do not warrant the use of constructivist methods- these have to be recognized and worked with. The author states that student-teachers should not be admonished for not teaching constructivistically but should be appreciated for the effort they make to use infuse more interactive pedagogies into formalistic teaching strategies. The student-teacher in the case study maintained a respect for the students' knowledge and encouraged critical thinking through his question-answer routine in class. The author calls for a 'recognition for a broader range of pedagogical alternatives for demonstrating excellent teaching.' Tanzanian teachers are known through other studies (Barrett, 2007, p290) to adopt progressive ideas into their notion of 'participation' and relate them to the Tanzanian pedagogic tradition. 3. The author reiterates the point made by O'Sullivan- there is a need to be 'flexible to adapt teaching to the individual contexts encountered. 'The heterogeneity in teachers, students and classroom contexts requires curriculum and implementation to be flexible.' (p310) 4. The author points out that the more learner-centred teachers were seen where principals supported this kind of learning. The schools with lesser resources tended to use more formalistic methods of teaching. The question to ask maybe is how does one improve the quality of formalism? 5. Educational policy reform must include experiential experience for policy expert- those responsible for formulation, implementation, and evaluation- teaching and living a teacher's/ teacher-educator's life to know the constraints under which they work will result in more realistic planning. Teach in an overcrowded, under-resourced classroom, live on teachers' salary, etc. There needs to be 'a more anthropologically informed approach to policy making in general and to teacher-educator reform in particular.' (p310) 	<p>countries and 9 Tanzanians. The college adopts a 'wide range of active, participatory teaching and learning methodologies' in keeping with its social justice philosophy. The challenge was to find how this philosophy would work in a context where rote teaching is the norm.</p> <p>In this context the author, also one of the teacher-educators, took an ethnographic approach in this study. She lived on campus with her family. She was a participant and observer. She conducted in-depth interviews with staff and students about past and present educational reforms in Tanzania, made field-notes of daily conversations and events, transcribed and codes common domains or culturally relevant categories. She also used insights from student-teachers into the challenges of putting into practice constructivist principles they learned in college. She describes 3 vignettes in the paper one was based on her own teaching of English, and two from two student-teachers' mathematics classes.</p>	<p>co-construct knowledge together in a way which will help them to tackle examination questions critically and with confidence. The author describes how the degree of social constructivist orientation varied in the teachers from UK, US, Germany and Tanzania. A normal distribution in assessments was hard for Vavrus to achieve- she invariably gave 'more' marks. Weaker students in her class benefited from help from their peers. Her descriptions in the vignettes are educative for the technique of class observation.</p> <p>The author links the shortening of teacher training programmes with a lack in quality in training- the circumstances are different from India, but a similar situation of para-teachers is an issue on the Indian scene.</p> <p>The author takes a decision to not teach content in her classroom, which most students asked for, but help her students to develop an approach to teaching writing over more grammar drills. This would help them in their exams and later in their teaching. This was an example of contingent constructivism that the teacher-educator, the author embarks on, when time was short and skill wanting in the student-teachers.</p> <p>The author came up with a recommendation for 'contingent constructivism' for Tanzanian teachers.</p>	<p>The process of contingent constructivism seems to be very person dependent and so difficult to generalize across schools and teachers. Again a process has been demonstrated and more studies in different areas and different situations could be carried out to bring teachers closer to using more constructivist teaching strategies maybe within their teacher-led classes.</p>	<p>Dr. Poonam Batra is a Faculty of Maulana Azad Centre for Elementary Education at the Central Institute of Education, University of Delhi. She developed the Bachelor of Elementary Education Programme introduced into Delhi university colleges in response to the needs from teachers articulated in the NCF2005.</p>
<p>Poonam Batra</p> <p>Reclaiming the Space for Teachers to Address the UEE Teaching-Learning Quality Deficit, Education for All- Mid-Decade Assessment; National University of Educational Planning and Administration,</p>	<p>This review paper is one of many papers written to contribute to a mid-assessment review taking stock of progress made with respect to EFA goals in India.</p> <p>This is a thematic review paper written about teacher and teacher education by an expert in the field, Poonam Batra, with the aim to place before policy makers, planners and civil society an analytical picture of the progress made towards EFA goals and the challenges ahead for reaching the goals in a realistic fashion. This paper focussing on teacher supply and their preparation to meet the increasing demand for teachers and also examine the provisions and processes related to teachers and teacher education.</p> <p>The six goals listed in the Dakar Framework of Action are:</p> <ol style="list-style-type: none"> 1. Growing and improving early childhood care and education especially for the least 	<p>A critical review of various reports related to EFA progress, put into context with reference to other review papers and educational research.</p>	<p>This review paper provides an overview of teacher supply and provisions, processes and education of teachers. It has been written in 2009 just before the publishing of the NCFTE 2009-10. It informs the reader of the situation and trends in thinking about teacher related issues through a discussion of the</p>	<p>In terms of my research, I would have liked more details about the primary sources on which the author based her opinions. In terms of content, certain key issues find little mention in the report like a closer idea of the Institutions where teacher training is carried out, the structural relationships of the different institutions like DIETs,</p>

New Delhi	<p>privileged children.</p> <ol style="list-style-type: none"> All children have access to 'complete, free and compulsory primary education of good quality.' Learning needs of young and old adults are met through equitable access to life skills and learning programmes Achieving 50% improvement in adult literacy by 2015 Eliminating gender disparities from primary and secondary schools by 2015 with equitable access to basic and continuing education to all adults. Improving quality of education to recognisable excellence, and achieving measurable learning outcomes in literacy, numeracy and essential life skills. Surprisingly there is no goal for teacher and teacher education in this list. <p>Section 1: India's expanding teaching-learning quality deficit</p> <p>The last 15 years have shown that the goal to enable equity and quality has not been reached. SSA (Sarva Shiksha Abhiyan) took on ambitious goals but did not reach them. India now has a larger illiterate population than its total population in 1947. (Figures?) Enrolment figures of 96% have been achieved among 6-14 year olds but there is a high incidence of repetition and a higher proportion of over-age and under-age children in various grades pointing to a lack of quality. The report concedes that there can be many factors which influence quality, but asserts that teachers hold the key to classroom teaching and learning, pointing to the need for a closer analysis of teacher recruitment policies, supply, lack of numbers, qualification and preparation (p2, 4). The increasing trend to hire under-qualified para-teachers is alarming. On the other hand democratic participation, self-governance, recognition of human rights show improved indicators. Dropouts have decreased from 2.5 crores to 1.34. Dropouts in urban and rural areas still show a difference. Severe challenges are still seen in Bihar, Orissa, Uttar Pradesh, and West Bengal. Dropout numbers in marginalized groups are still high (p3). Caste and gender is still an issue (p3).</p> <p>Section 2:</p> <p>What are the unaddressed challenges?</p> <p>Only 42% of 6-13 year olds in rural areas attend school regularly. Out of school children are mainly girls from disadvantaged groups showing a link between deprivation and school participation. Only 52% of enrolled children attend school regularly. Figures show a huge lack of literacy and numeracy in the children attending school. There is a rise in private schools filling the gaps that government schools leave. 90% of rural schools are state schools. Urban enrolments in government schools is lower reaching 57% in UP (p6) Schools that do exist do not function properly. Some schools have become the 'worst violators' (Action Aid). To achieve UEE a concerted focus on quality is urgently required. Two factors have been seen to influence quality is the recruitment of para-teachers and the existence of 'transitional schools' and 'regular schools' (p7). Quality education is described in the report to be centred around a quality curriculum, committed, trained teachers and an inclusive, safe, conducive teaching-learning environment. The importance is of the teacher who brings it all together. Teachers need greater ownership of curriculum and pedagogy to help a child learn actively and meaningfully. For this a teacher needs to be supported, networked and able to participate in knowledge activities to be able to create new opportunities. This way the teachers can participate in social transformation. The NCF2005 created enthusiasm to enable children, their parent and communities, to change their lives in a way that is meaningful to them. This section emphasized the need to 'open up spaces' for dialogue among schools, communities, teachers and students. 'Contradictions between commitments to quality education, a fundamental right, have become murky with the push for a neo-liberal outlook wherein marketization of educational services is promoted. This has led to an increase in low paying private schools. This raises the question of how do these schools close the gender and social gaps, so necessary in Indian society.</p> <p>Section 3</p> <p>Teacher Agency: Unarticulated and unaddressed concern</p> <p>The critical role of the teacher to tie together the curriculum and an inclusive, engaging teaching-learning environment, has been found by this section to be largely ignored by administrators and policy makers. Para-teachers are being increasingly employed, and pre-service training of teachers abandoned by State governments. Teachers are seen as implementers of the curriculum, passive agents of the State. The NCF offers little direction on 'how teachers can be persuaded and trained to magically translate the vision of the NCF2005 in schools.' This section has valuable insights into the status of teaching in India. Teaching has dropped to being the least favoured profession over the last 30 years and so according to Kale (1970) it attracts women who</p>	<p>findings in recent reports about primary education, teachers and institutions.</p> <p>It brings together the findings and interprets them to provide a particular point of view or coherent argument about the field.</p> <p>This was valuable for my research as it provides with me with India-centric knowledge from primary sources and also an insight to how and why the NCFTE has taken the form it has; the reasons behind the teacher training courses recently introduced in Delhi University and how they differ from the ones in DIETs; the reasons for the intake of para-teachers and how they now affected the quality of education.</p> <p>The suggestion that strengthening of ties between DIETs and universities seems to me to be a move in the right direction but a more detailed plan for this needs to be created.</p>	<p>SSA, SCERTs and others. There was very little about teacher-educators-this was significant for my research, showing me a gap. Also there is no mention on plans for implementation of any new changes that were introduced by changed policies e.g. the implementation of the NCF2005 through teachers.</p> <p>The nationally desired changes in teacher training have been looked at from a particular point of view. Details of alternatives tried out in India to the proposed teacher training are thin- just a few are mentioned by location. There are no further details about them. There are examples of more situated in-service teacher training (Saigal, Dyer) that do not find mention in this national report. Primary research shows that rural areas lack teachers, especially trained teachers.</p>	<p>The references section show that she has referred to Dyer (1999 and 2004), several Government of India reports, Amartya Sen, Geetha Nambisan, Krishna Kumar, Padma Sarangpani, Santosh Mehrotra,</p>
-----------	--	---	---	---

<p>see it as a socially acceptable job. Lack of teachers makes it a sure job, a good fall back rather than a preferred profession (p12). There is an acute undersupply of primary school teachers in rural areas. But the report indicates this needs to be further studied for different regions and states. There is an oversupply of 200% of secondary school teachers (18%) for a small percentage of students (8%)</p> <p>Learner-centred education (LCE) is being adopted by many developing countries. It is believed that all learners need to engage with and co-construct knowledge in order to experience deep and meaningful learning.'</p> <p>This pedagogy is supported by the world aid and donor agencies because it is believed to help align learner's individual aspirations with the global economy by building national capacity and develop democratic ideals in a person. It is supported by rights based analysts because it encourages the learner's voice and decision making in favour of the learner.</p> <p>Implementation of learner-centred pedagogy has been problematic. Studies about this from all over the world show that the failure in implementation is due to low teacher capacity, lack of experience of LCE by the teacher-educators (TEs) and so the student-teachers (STs), lack of appropriate teacher and teacher-educator training, lack of resources, cultural differences especially conceptions and importance of community learning over individual learning, power and agency. LCE has been found to not lend itself to the western conception and is believed by many scholars in the developing world to be re-conceptualised to suit conditions of countries from the South.</p> <p>Structure of the study</p> <p>In this article, Schweisfurth has integrated research in LCE from 72 articles published from different countries; over the last 29 years. Most of the research is small scale, qualitative, based on interviews, sometimes questionnaires, a few classroom observation (O'Sullivan), backward mapping of policy (Dyer, 994a) and action research (Walker 1994).</p> <p>Conclusion/ Discussion</p> <p>Schweisfurth found very few success stories. Many scholars in their papers recommended changes in the forms of learner-centredness towards adjusting to resources availability, numbers of students and available capacity of teachers. The conclusions discussed were that since teachers are not different from learners, the policies adopting LCE should be developed with regard to the principles of LCE. If teachers have to change paradigms of teaching, then the implementations resources, material and non-material should be appropriately provided. Contextualisation is important.</p>	<p>Context/ setting of research in the articles reviewed:</p> <p>Learner-centredness in developing countries from articles set in pre-schools to secondary schooling to higher education and alternate education. Teacher training schools with both pre-service and in-service programmes. Teaching of science and language received special attention.</p> <p>Methodology</p> <p>Evaluated 72 research studies over 30 years of a journal articles on learning-centredness in a developing country context. The articles were selected to represent the developing countries.</p> <p>Not all articles addressed LCE directly or defined it (concisely and explicitly) but all shared a common concern for moving pedagogy, assessment and curriculum away from 'teacher centred', didactic, frontal, 'chalk and talk' teaching focused on rote learning. Most referred to constructivist principles or other related but more specific terms in local use- outcome based education (S. Africa)</p> <p>Most research is small scale.</p>	<p>This paper almost gives a historical overview of learner-centredness with a special emphasis on developing countries over three decades. It includes pedagogical practices which are related to learner-centredness, may not be labelled so, giving the reader a continuum of learner-centredness in different regions of the world.</p> <p>It highlights implementation problems, results of various teacher trainings, local problems affecting LCE from different countries.</p>	<p>All the papers reviewed lacked the voices of young learners. The collection contained 4 papers by Dyer, 1 by Arathi Sriprakash related to India.</p> <p>The approach adopted a broad overview of the LCE, and so a broad exploration of different facets of LCE. For details, I would need to refer to specific papers reviewed.</p> <p>Schweisfurth describes different aspects of learner-centredness but does not come up with a definition of it at the end of the article leaving the debate open to what learner-centredness is actually taking into account contingent LCE, learning-centred teaching, activity learning, etc.</p> <p>I found I was not clear about the pedagogies involved in learner-centred education except an overarching 'constructivist approach'. Several authors reviewed in this paper found they needed to include any pedagogy which insured learning (O'Sullivan) or shades of constructivism embedded in formalistic approaches to teaching (Vavrus) and so different educational theories seemed to become a part of learner-centred education- as was found appropriate for learning to take place in the situation under study. So, pedagogically, what is learner-centredness in practice? Theoretically it is based on constructivism, again which one – Piaget or Vygotsky or any other form of it? I would need to read about different forms of constructivism in greater detail. The different papers described different situations in various countries trying to change to learner-centredness. Pedagogically the paradigmatic kind of change this required pointed to implementation probably needed to be carried out in stages and needed to be</p>	<p>Vavrus and O'Sullivan's papers are referenced in this review paper.</p> <p>More reading to be done: Michele Schweisfurth, 2013</p> <p>Sriprakash, A., 2010. Child-centred education and the promise of democratic learning: Pedagogic messages in rural Indian primary schools. <i>International Journal of Educational Development</i> 30, 297-304.</p> <p>Dyer, C., Choksi, A., Awasthy, V., Iyer, U., Mayode, R., Nigam, N., Purohit, N., Shah, S., Sheth, S., 2004. Knowledge for teacher development in India: The importance of local knowledge for in-service education. <i>International Journal of Educational Development</i> 24, 39-52</p>
--	---	--	--	--

<p>Saigal, A., 2012, Demonstrating a situated learning approach for in-service teacher education in rural India: The Quality Education Programme in Rajasthan</p> <p>(ICICI Foundation for Inclusive Growth, Centre for Elementary Education, New Delhi, India, a woman researcher)</p>	<p>The author reports on the Rajasthan Government's efforts to improve the quality of teaching to become more responsive to learners with a greater constructivist orientation as recommended by the NCF2005, NCFTE 2009 and RTE 2009). This research reports on an attempt to 'reposition' teachers from being mere 'deliverers' of content to changing their pedagogic practice to become reflective practitioners. The paper looks at situated learning practices to support teachers to make this change in their practice. This project was implemented in Baran district across ...schools. Specially trained 'Educational Resource Intermediaries' were assigned to look after 3 schools each and provide on-the-spot in-service teacher education to primary school teachers to develop appropriate resources, 'model teaching activities bounce ideas and help plan lessons.' The paper presents the analysis of the situated learning processes that developed during this exercise.</p> <p>Centrally controlled, top-down attempts in the 1980s-90s following cascade training models had not worked. In these models knowledge was a given, context independent and easily transferrable. Teachers were assigned the role of being transferors of knowledge rather than professionals who constructed and negotiated knowledge in their teaching. This model did not acknowledge the teacher's autonomy or professional knowledge or take into consideration the context of rural poverty. The DIETs and SSA had emphasized the need for a more contextual approach. After much effort and deliberation policy changed to emphasize a more constructivist approach to develop and support more reflective teachers in schools. In-service teacher education and reform was embedded in the more recent government attempts at teacher development. In the light of this experience, this paper argues for 'collaborative, situated model sensitive to the local needs and context, informed by reflexive thinking to translate educational ideas to the more rural setting.</p> <p>Situated learning is not a cognitive process of knowledge accumulation but rather a more 'socially mediated' process. The paper draws on learning from research done by Lave and Wenger's communities of practice. The author recommends the emphasis on participation by the teacher in the learning process drawing on the situated learning perspective (Skinner, 2010) which is more 'socially constituted' (Putnam and Borko, 2000) implying that knowledge is contextual, more fluid, and learning is distributed, emphasizing 'interactive systems that include individuals as participants, interacting with each other as well as materials and representational systems' (Putnam and Borko, 2000:4). The development of this project took place in the light of research done in Pakistan which partnered teachers and teacher-educators to enable help within the context of 'realities and difficulties of practice.' (Mohammed & Harlech-Jones, 2008:537) The project was planned taking into account the local realities of working with government employees, keeping a respectful distance between the teachers and the ERIs, with both finally taking on an active role to bring about changes.</p> <p>Cross case analysis revealed complementary strategies of situated learning perspectives already described. The paper discussed two prominent complementary strategies used: a. Sustained dialog with teachers about their pedagogic practices and b. situated modelling strategies to build child-friendly learning environments. To do this, teachers developed new pedagogic practices which 'shifted from rote learning to active processes of meaning making' (p1013). This developed a more inclusive participatory environment in the schools and showed the value of situated learning approaches to educational reform.</p> <p>Conclusion:</p> <p>The case studies showed the success of situated learning opportunities through dialogic and modelling processes. These provided the teachers with definite strategies to make their pedagogic change to more constructivist practices. The changes were appropriate to the rural context and feasible. Glazer and Hanfin (2006) identify 4 stages of collaborative professional learning in teaching communities. These are introductory, developmental, proficient, and mastery. All these were visible in the project. Instead of peer learning, the collaboration came from the ERIs, from outside the school. To bring changes into the teaching process there was constant negotiation between the teacher and ERI. The ERI, in one of the case described, did not impose but used the teacher's current practices to start the dialog. New forms of learning were initiated through small changes. In the case of the school assembly. So, learning was continuous</p>	<p>The paper was developed from a larger study where 6 schools were examined after 3 years of starting the teacher professional development program. The larger study used a multiple case study design (Creswell, 2007, Stake, 2005), where 6 schools, each were developed as independent case-studies and then results were compared and analysed across all 6 schools. Data was gathered in 2010. The study used a mix of methods like focused participant observations for 4 days in each school to record pedagogic practices in classes and interactions between ERIs and teachers. In-depth interviews were carried out with 14 teachers and principals, 22 project staff and government functionaries to explore experiences and perspectives with special emphasis on the support provided to the teachers. Data was also collected through informal discussions with participants, recorded in field diaries. QEP project documentation, past reports were also analysed. The analysis was done thematically across the individual case studies. Interviews were conducted, transcribed and analysed in Hindi. Later relevant quotations were translated into English. Permission was sought from schools, aims of the research explained; informed consent was obtained from individuals. Data was anonymized to protect participant identities.</p>	<p>This study is designed with clarity, great understanding of the theoretical and practical implication and shows powerful results. The solutions are child-friendly and based on constructivism.</p>	<p>In the context of my MRes research, this paper does not contribute much. It could possibly contribute for future research which emerged from my MRes research, towards development of teacher educators.</p>	<p>strategically planned. This was not taken up in the paper.</p>	<p>Saigal has referred to Batra, Clarke, Dyer, also referred to by Schweisfurth in her overview paper (2013).</p>
---	--	---	--	---	---	---

	<p>and social. The teacher's knowledge and experience was respected. This was a contrast to the usual changes brought into the system as teacher professional learning is part of an institutional culture normally and this approach does not value the teacher's own professional pedagogic knowledge and authority. In this case there were no pre-determined modules: the status quo was not maintained. The CERS were professionally trained and able to provide the necessary academic input unlike normal underequipped training facilitators. The alternative form of teacher development provided in this project offers a new way to teacher development as shared experience, contextual, social, aligned to daily aims, with professionals playing a key role, sustainable and scalable. This effort was extended to cover 50 schools over another 6 year period.</p>				
--	---	--	--	--	--

Appendix 3.1: Approval for research from HREC, Open University



The Open University

From Dr Duncan Banks
Chair, The Open University Human Research Ethics Committee
Email duncan.banks@open.ac.uk
Extension 59198

To Sumita Sarkar, CREET

Subject *"How do teacher educators in a teacher education institute in India interpret and practice learner-centred pedagogy in their classroom?"*

Ref HREC/2014/1645/Sarkar/1
Red form E/13/24/KS
Submitted 7 March 2014
Date 12 March 2014

Memorandum

This memorandum is to confirm that the research protocol for the above-named research project, as submitted for ethics review, has been given a **favourable opinion** by the Open University Human Research Ethics Committee. Please note that the OU research ethics review procedures are fully compliant with the majority of grant awarding bodies and their Frameworks for Research Ethics.

Please make sure that any question(s) relating to your application and approval are sent to Research-REC-Review@open.ac.uk quoting the HREC reference number above. We will endeavour to respond as quickly as possible so that your research is not delayed in any way.

At the conclusion of your project, by the date that you stated in your application, the Committee would like to receive a summary report on the progress of this project, any ethical issues that have arisen and how they have been dealt with.

Regards,

Dr Duncan Banks
Chair OU HREC

Appendix 3.2: Planned outline of semi-structured teacher-educator's interview

Planned outline for semi-structured Teacher-educator Interview

How do teacher-educators in a teacher education institute in India interpret and practice learner-centred pedagogy in their classroom?

Personal history

Name? Are you married? How many children do you have? Are they all going to school/ college or working? What are their areas of specialization? Would you have liked your children to become teacher-educators? Please give reasons for your answers. What does your spouse do?

Professional history

How long have you worked at this DIET centre? What is your key role at the DIET? What is your teacher-education institute area of specialisation? Where were you before you worked at the DIET? How do you see your contribution at the DIET?

Generic job related questions, understanding what is important for the teacher-educator

Why did you come into education/ become a teacher-educator? What do you enjoy most in your job and why? What do you like least in your job and why?

Probing influences and beliefs about teaching and learning

Please tell me about a teacher who you loved in your school life? Why did you like her/him? How is your own teaching different from your favourite teacher's? Who do you think is more important- the teacher or the student? Please give a reason for your answer.

Knowledge about learner-centred teaching methods and techniques

Discuss what was observed in class. Ask about why certain strategies observed were used. Ask about teaching strategies. Pick any three that the TE thinks are important and probe further. E.g

About 'good classes'

Can you remember a good class that you conducted? Briefly describe it. Why did you think it was good? How do you check a student's understanding? What happens when a student doesn't understand? What do you do?

What does the teacher-educator consider is a 'good class'?

What do you understand by learner-centred education (LCE)? Check where she stands and then follow up with more questions. How important is it to be learner centred? Please give reasons for your answer. Can you be learner-centred all the time? If no, please describe two instances. Do you find it easy to be learner-centred or is it difficult? Please give reasons for your answer.

Are there any differences in learner-centred education for student-teachers and children? If yes, what are these?

Why does the government want to use LCE?

Do you agree that it should be used? Please give reasons for your answer.

To what extent can it be used practically? Please give reasons for your answer.

About working at the DIET centre

How do you think the DIET centre can help you to improve your teaching situation? How do you think the DIET centre can help you to improve your teaching methods? What are the changes you would make in the DIET centre if you could?

About development, training and growing professionally at a DIET

Have you ever attended trainings? How frequently? Which is the best training or class that you remember having attended? Why do you remember it? Have you faced any challenging situations at the DIET?

Appendix 3.3: Planned outline of semi-structured principal's interview

Professional background details

How long have you worked at this DIET centre?

What is your key role at the DIET?

Where were you before you worked at the DIET?

Views on education and what is important for the principal

Why did you come into education and become a principal?

What do you think is the aim of education in India?

What is the aim of education at the DIET centre?

What do you enjoy most in your job and why?

What do you like least in your job and why?

About the DIET centre

How do you think the DIET centre can help to improve the educational quality?

How do you think the DIET centre can help to improve teaching methods used?

What are the changes you would make in the DIET centre if you could?

How do you think, as a principal, can you influence the quality of teaching at a DIET?

Can you influence the pedagogy of teaching at a DIET? How?

What do you understand by the term learner-centred education?

How important is learner-centred education, in your opinion? Why?

Is it carried out at the DIET? How well? How can this practice be improved?

About a in-service trainings in the past

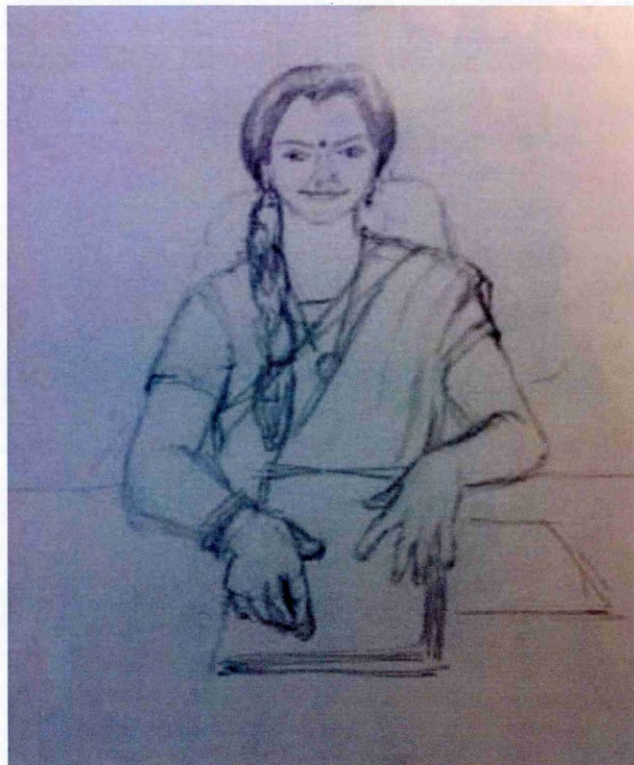
Do you organise in-service trainings at the DIET or outside the DIET? Where, how frequently and what are the attendance numbers?

Which is the most successful training that has been conducted by the DIET centre? Why was it successful?

How can in-service trainings be improved and increased?

How can pre-service education be improved and increased?

Appendix 3.4: Sketch and outline of story for focus group discussion



This person's name is Nilima. And together we will develop her story. She is about 36 years. She is married. She has two children. One child has completed school, one attends school. Her husband is a PWD engineer. I have created the story till here, now after this, can you add something to this story?

She has now got a chance to go to Barabanki DIET and her husband has also been transferred there, so now for a few days she is in Barabanki DIET.

A few days later, she sees in the newspaper that there is a place in Lucknow DIET which is open. So, will she apply at the Lucknow DIET?

For a promotion she went for an interview. In the interview, what did the principal ask her?

Her husband also gets a transfer to Lucknow. What does she do now?

During the interview, the principal asked her one question. What do you know about the NCF (2009)? What reply did she give?

Then the principal asked another question. NCF (2005) was created, but for teacher-educators, to prepare teachers, for the training, nothing had been done. So, now NCFTE (2009) (National Curriculum for Teacher Education (2009) was produced. How is this different from the earlier curriculum?

The principal told Neelima, that if she wants to teach at the DIET, then she will have to get familiar with the new syllabus. What does she do?

How much time will she take to prepare for her classes?

Appendix 4.1: Rubric tool format to qualitatively view a teacher's practice

Dominant practice of teacher education (NCFTE (2009))	Rationalised to teacher-led teaching and learning practices	Observed or shared	Rationalised to learner-centred teaching and learning practices	Recommended process-based teacher education NCFTE (2009)
TL-A	A1	A2	A3	LC-A
Focus on psychological aspects of learners without adequate engagement with contexts. Engagement with generalised theories of children and learning.	Extrinsic learner motivation	A mix of extrinsic and intrinsic motivation	Intrinsic learner motivation	Understanding the social, cultural and political contexts in which learners grow and develop. Engagement with learners in real life situations along with theoretical enquiry
	The teacher-educator delivers the topic for the day in class, with no special effort to engage the student-teachers.	Teacher-educator delivers the topic in a fixed knowledge paradigm, engaging the student-teacher with her technique, not necessarily depth of theory and content	Teacher-educator plans and delivers the lesson to be engaging with sufficient depth of theory and content, for the student-teachers	
	Language is difficult or foreign	Language is subject oriented and just understandable	Language is accessible	
	Examples, etc. are not relevant to learners' lives	Some examples, etc. are relevant to learners' lives, some are not	Examples, etc. are deliberately chosen to be relevant to learners' lives	
	Content is not delivered with relevance to future needs	Content is shaped according to the curriculum, not necessarily in touch with future needs	Content is shaped by relevance to perceived future needs	
Highly hierarchical	No respect and regard flows from teacher-educator to student-teacher	Respect and regard flows from teacher-educator to student-teacher, but lead, dominated and directed by the teacher-educator.	Respect and regard flows from teacher-educator to student with space for reaction from student-teacher to teacher-educator, could be directed by student-teacher	Mutual respect
	No respect from student-teacher to teacher-educator	Respect and regard flows from student-teacher to teacher-educator in socially acceptable ways	Respect and regard flows from student-teacher to teacher-educator, deeply	
TL-B	B1	B2	B3	LC-B
Theory as a 'given' to be applied in the classroom	Knowledge is fixed	Knowledge is fixed, but delivered interactively	Knowledge is fluid	Conceptual knowledge generated based on experience,
	Theory is a given. No	Teacher-educator builds	Teacher-educator	

	reference to learner's / learners' existing knowledge individual or collective.	on learners' collective knowledge through whole-class teaching, with a collective norm for the class knowledge, observations and theoretical engagement.	builds theory and conceptual knowledge on learners' existing individual and collective knowledge, experience, observations and theoretical engagement	observations and theoretical engagement.
	No microteaching	General class teaching with mentor feedback	Well carried out micro-teaching with peer feedback	
	Lesson plans developed in a formulaic manner and similarly assessed.	Well-developed lesson plans as perceived by the teacher-educator and critiqued from the teacher-educators view-point.	Well-developed lesson plans targeted for the real situation on the ground	
TL-C		C2	C3	LC-C
Knowledge treated as external to the learner, something to be acquired.	Fixed curriculum	Fixed curriculum with some inbuilt choices for teacher-educators	Negotiated content	Knowledge generated in the shared context of teaching, learning, personal and social experiences through critical enquiry.
	Teacher-educator is authoritative	Teacher-educator balances facilitation with authority	Teacher-educator is facilitative	
	No class discussions	Teacher-educator initiates and encourages class discussions that are closed and carried out on the terms of the teacher-educator	Teacher-educator initiates and encourages class discussions that are open-ended	
	Only teacher-educator to student-teacher	Teacher-educator to student-teacher, with occasional interaction with student-teacher	Teacher-educator to and from student-teacher	
	No student-teacher to student-teacher or student-teacher to teacher-educator interaction	Student-teacher to teacher-educator interaction	student-teacher to student-teacher interaction (minimally observed)	
TL-D	D1	D2	D3	LC-D
Teacher educators instruct and give structured assignments to be submitted by individual students.	Authoritarian		Democratic	Teacher-educators evoke responses from students to engage them with deeper discussions and
	One way transmission	Directed dialogue is used	Dialog is used	
	No questions to learners	Closed questions to learners	Open ended questions to learners	

	No questions encouraged from learners.	Teacher-educator controls the questions from learners. The environment is teacher-directed.	Environment conducive for learners to ask questions. Questions are applauded and appreciated. (but no questions were asked by the students)	reflection.
TL-E	E1		E3	LC-E
Training schedule packed by teacher directed activities. Little opportunity for reflection and self-study	Frontal 'chalk and talk' transmission Teacher dominated Lecture	A mixture of both. Teacher dominated lecture with teacher-directed limited interaction	Independent or group inquiry Interactive lectures	Students are encouraged to identify and articulate issues for self-study and critical enquiry. Students maintain reflective journals on their observations, reflections, including conflicts.
	No space for reflection	Limited space for reflection and open-ended inquiry	Space for reflection through individual or group inquiry	
	Pre-worked out answers expected	A mix of both.	Reflective assignments	
	No reflective journals	Occasional reflections asked for from the student-teachers by the teacher-educators	Reflective journals (not observed)	
TL-F	F1	F2	F3	LC-F
Students work individually on assignments, in-house tests, field work and practice teaching.	Individual work Pre-worked out assignments to be submitted by individual students	Individual assignments completed by student-teachers with their original thoughts and views.	Group work	Students encouraged to work in teams undertaking classroom and learner's observations, interaction and projects across diverse courses. Group presentations encouraged.
	In-house tests, no presentation	In-house tests and individual presentations	Assignments, group presentations	
	No presentations	Presentations encouraged in pre-worked out formats	Group presentations	
	No peer demonstrations	Selected students chosen for doing presentations	Peer demonstrations	
	No field work	Field work in specific schools	Field work	
	No practice teaching	Practice teaching to complete teacher training institute requirements	Practice teaching in accordance to school requirements	
TL-G	G1	G2	G3	LC-G
Practice teaching of	Practice teaching	Practice teaching with	Practice teaching with	School internship-

isolated lessons planned in standardised formats with little or no reflection on the practice of teaching.	Without reflections	minimum reflections	deep reflections	student teach within flexible formats, larger frames of units of study, concept web-charts and maintain a reflective journal.
	Standard formats for records	Records with some amount of critical inputs	Critical records	
	No peer evaluation	Peer comments invited but evaluation done by teacher-educator	Peer evaluation	
TL-H	H1	H2	H3	LC-H
No structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge part of classroom discourse.	No "space" to address students' assumptions about social realities, the learner and the process of learning in class.	Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates only within a framework of fixed knowledge	Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates and assignments	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge part of classroom discourse.
TL-I	I1	I2	I3	LC-I
No, "spaces" to address students' assumptions about social realities, the learner and the process of learning	No "space" to examine students' conceptions of subject-knowledge except through tests and examinations	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom and group discussion, critiquing of practice, presentations, and debates within a framework of fixed knowledge	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom and group discussion, critiquing of practice, presentations, debates and assignments	Learning "spaces" provided to examine students' own position in society and their assumptions as
	KEY	Data from class observations	Data from interviews	

APPENDIX 4.1: Rubric table filled in with quotes and descriptors from observation and interviews

Dominant practice of teacher education (NCFTE2009-10)	Rationalised to teacher-led teaching and learning practices	Observed in class observation or shared in interviews	Observed in class observation or shared in interviews	Observed in class observation or shared in interviews	Rationalised to learner-centred teaching and learning practices	Observed in class observation or shared in interviews	Recommended process-based teacher education (NCFTE2009-10)
	CONTENT DRIVEN	More teacher-led		Between learner-centric and teacher-centric	ENGAGING LEARNERS	More learner-centred	
1a. Focus on psychological aspects of learners without adequate engagement with contexts. Engagement with generalised theories of children and learning.	Extrinsic learner motivation	<p>'Attendance is a must at our institute. ... 90% attendance is mandatory. And after that there is consideration. They are not allowed to give the examination. You fail. You cannot appear in P-Principal does not let you appear. 90%, 10% relaxation.' (TE1Int2-31)</p> <p>'... your attendance was short, you did not appear for one semester. In the next semester you had full attendance, you have to make up your attendance, and with full attendance you can give your paper as a 'back paper'. Then in one year you have to clear two semesters together. This is more difficult. It is just like a punishment. Nobody wants this.' (TE1Int2-35)</p> <p>'Who are the students coming to us? Now we have many students with engineering degree whose aim is not to come into teaching. The commission gives a good salary, they are coming for the salary. They don't want to go into depth when they have to explain.' (TE1Int1-298)</p> <p>'The students do not have their own desire to teach but come because of the high salaries, so they do not have the desire to teach well, they have the concept that they have come for a job, so then we also have to Ok them, how much can we change their minds? It wasn't like this earlier, the trend has changed slowly.' (TE1Int1-303)</p>	A mix of extrinsic and intrinsic motivation	<p>'You have been selected on merit. Maybe there may be some percentage of people who have made a choice to come to the BTC....' (TE1CO1-20)</p>	Intrinsic learner motivation	Not observed	1b. Understanding the social, cultural and political contexts in which learners grow and develop. Engagement with learners in real life situations along with theoretical enquiry

<p>The teacher-educator delivers the topic for the day in class, with no special effort to engage the teacher-students.</p>	<p>NA</p>	<p>Teacher-educator plans and delivers the topic in a fixed knowledge paradigm, engaging the teacher-student with her technique, and real life examples but limited theoretical inquiry</p>	<p>CLOSED QUESTIONS: TE1: What are our primary school children like? ... Our belief is that our primary school children are from such families where they are first learners....What are our children like? Student 1: The students are from a rural background and... TE1: From rural background. Student 1:...and their communication skills are not so good TE1: What? Student1: They are from rural background and their communication is not so strong. TE1: OK. And? Rural background and...? Their parents are? Student1: Their parents are farmers.... TE1: Farmers? Are they? Student 1: No they are not....not so much TE1: Means They are not very educated. There are also children who are first learners. OK? And what is the language medium? Students in unison: Hindi TE1: And sometimes we will have to use the local language. Why? Because we have to influence them to stay on in school. OK? Now I would like to know from you that what the regional / local language is here? Students in unison: Avadhi. (TE1C01-26-39)</p>	<p>Teacher-educator plans for an engaging lesson, and aims to engage student-teachers with real life situations along with theoretical inquiry</p>	<p>Structure of class not observed, though the TE had selected the topic with deliberation [...] but began and ended abruptly e.g. TE1: '... when we are making the child fluent in Hindi the child is becoming fluent in all languages because the skill of fluency is in all languages. That means that ...[goes on to rub the text from the white board] turns around....Is it now time to end? ... Turns around with the mic, and says. OK (In English) this was our class on Skills of languages. Very good, thank you for your cooperation (?)' (loud clapping from students) (TE1C01-26-31) <i>No reading references or any text, etc. was recommended during the class for theoretical inquiry and backing.</i> TE1: "... That is why the speech of the teacher, is needed for the development of the first skill is most important. (The TE1 looks at her watch and the clock). It is this skill ...and then she nodded, to stop the class. The students clapped." (TE1C02-34)</p>	<p>Language is difficult or foreign</p>	<p>NA</p>	<p>Language is subject oriented and just understandable with occasional checking for understanding by teacher-educator</p>	<p>NA</p>	<p>Language is accessible and teacher-educator is responsive to student-teacher feedback and regular checks for understanding</p>	<p>TE1: 'Ok, OK. Does the sound reach you clearly with this or without? I will be talking through a mic. Can you hear clearly through the mic?' Students in unison: Yes, Yes, mi'am. (approximated) TE1: Hello! A heartfelt welcome to you all to the BTC 2013 programme. (TE1C01-14-16) TE1: Put up your hand. What are these, tell me. ...silence in class....Will anyone tell me? (When she does not get an answer:) OK, you leave these. Don't tell me the competencies: (TE moves on to ask the question in a different way, which the students understand) (TEC02-21) TE1's language was peppered with english words which have almost become a part of everyday spoken hindi. हाँ ... देखिए ... जैसे कि Language is the medium by which we gain other subjects' knowledge। जितने भी other subjects हैं उनको knowledge हमको मिलती है तो किन्हे द्वारा मिलती है? Language के द्वारा और language skill based क्यों है? Dekhiye Ab ap ap ye thora sa isme dekhिये- yahan par(unclear)...ki baat kar rahe hain. मान लीजिए की स्मूटर चलाना है। किन्हे लोग स्मूटर, बाईक, गाड़ी चला लेते है? Kine log chala lete hain? और किन्हे लोग ये जानते हैं कि गाड़ी कैसे चलाई जाती है। इसकी knowledge रखते है? नॉलेज रखते है लेकिन चला नहीं पते hain.' (TE1C01-14)</p>
---	-----------	---	--	--	---	---	-----------	--	-----------	---	---

No examples used	NA	NA	Examples, etc. are used but not relevant to students' lives	NA	Examples, etc. are deliberately chosen to be relevant to learners' lives	<p>TE1: 'And why is language skill based? Now we are talking about studies, for example someone is riding a scooter, how many people ride a scooter, drive a car - easier to understand- how many people know how to drive a car and how many people know how a car has to be driven? Have knowledge of it? They have the knowledge but they are not able to drive. There are many people who have (keep) the knowledge but are not able to drive. How many people know about how to make a chapatti but have never actually made it? How many people are there who actually make a roti (chapatti). No? Now, from those who have actually made a chapatti, tell me, how many people are able to make it well, round, and with finesse. There are also whounclear....want perfection cannot also make a really good chapatti. But, how a chapatti should be made, everyone knows. Right?' (TE1CO2:14-15)</p>
Content is not delivered with relevance to future needs	NA	Not observed	Content is shaped according to the curriculum, not necessarily in touch with future needs	Not observed	Content is shaped by relevance to perceived future needs	<p>TE1: 'If we have to use Avadhi or a local language, Avadhi for this area, another area will have another language, till which class (should they be taught in the local language)?' (TE1CO1-42)</p> <p>'If when the child is speaking we do not differentiate between 'kach' and 'kaksh' then he will read 'kach' as 'kaksh' and also 'kaksh' as 'kach'. So, how will 'listening discrimination' be inculcated? By the manner in which the teacher speaks. So, what does this mean? The speech of the teacher, which is the child's second skill, becomes the teacher's first skill and this has to be developed. The child will learn what he hears.'</p> <p>'...if I speak incorrectly, you are learned, but in the institute there must be at least 40 to 100 children, where you are going to teach, if even one teacher speaks incorrectly, this will affect 100 students' learning and will become incorrect. That is why, which word is where, how to pronounce words correctly, this is the knowledge the child learns through the speech of the teacher.' (TE1CO2:34)</p>
No respect and regard flows from teacher-educator to teacher-student	NA	Respect and regard flows from teacher-educator to teacher-student, but lead, dominated and directed by the teacher. Mainly from teacher-student	Respect and regard flows from teacher-educator to teacher-student, but lead, dominated and directed by the teacher. Mainly from teacher-student	Does the sound reach you clearly with this or without? I will be talking through a mic. Can you hear clearly through the mic? (TE1CO1-14)Hello! A heartfelt welcome to you all to the BTC 2013 programme. (TE1CO1-16)My name is TE1. I am alecturer..... Today we should have an introductory (prima facie) class with a little. We have the good fortune we have a researcher, R., from UK as a teacher-educatorshe has come to observe how a teacher educator classed take place in India. Again a welcome ...(TE1CO1-20)	Respect and regard flows from teacher-student to teacher-educator, and vice-versa.	<p>TE1: '...if there are student queries that she does not know the answer to, she should not mislead them. She should accept that she does not know it, but will look it up and tell and ask the students to also look it up. You can see what good children come to our institute and I conduct a lot of discussions and my class is always very interactive, always, so I say that these things are not clear to me, if you know it, then someone tell me, otherwise I will look it up and get back.' (TE1Int2-54)</p> <p>TE1: ...area of interest is very important because we cannot force them (teacher-students) to learn. Small children can be made to sit in class, but if we don't see their (the teacher-students') area of interest then they will not sit in class. (TE1Int2-245)</p>

KNOWLEDGE IS FIXED AND EXTERNAL		KNOWLEDGE IS FLUID AND PERSONAL		
2a. Theory as a 'given' to be applied in the classroom	?	Knowledge is fixed, but delivered interactively	When asked by the researcher (R) how the topics were selected for group work, the TE (TE1) responded: They are in the syllabus. All from the syllabus. Topics are always taken each semester from the syllabus. Only from the syllabus. If the topics fall short, then we take it from their textbooks. So, that they have knowledge about the subject. They should be able to teach the children well. The aim is to teach the children well...they go on the field and teach. (TE1Int3 55-58)	Knowledge is fluid When asked about how students do their projects, the teacher educator answers: TE1: They have full freedom- take help from anywhere) from the internet, take help from graduation books, from post-graduation books, because project is not for children. Project is for the pupil teacher. Depending on how much knowledge they have, they will do better for our children. Depending on how enhanced (their knowledge is) our children will (benefit). TE1: If there are student queries that she does not know the answer to, she should not mislead them. She should accept that she does not know it, but will look it up and tell and ask the students to also look it up. "You can see what good children come to our institute and I conduct a lot of discussions and my class is always very interactive, always, so I say that these things are not clear to me, if you know it, then someone tell me, otherwise I will look it up and get back." (TE1Int2-54) TE1: I say it, which in this subject I don't know much, I will look it up and only then I will be able to tell you. If anyone among you knows, tell it. Otherwise I will only be able to tell you once I have looked it up. (TE1Int2-56) TE1: That is why with a mobile or internet you can solve the problem immediately... I ask them to look it up immediately on the internet. At the same time, in class I ask them to look it up, feed it in and find it on the internet and then I explain it. My children support me. I stop the class and immediately resolve it. Also, sometimes I am not satisfied with the internet, then I look for more studies, or consult and expert on phone, from my contacts and I clear it up (TE1Int2-58)
				2b. Conceptual knowledge generated based on experience, observations and theoretical engagement.
	NA	Teacher-educator builds on learners' collective knowledge through whole-class teaching, with a collective norm for the class knowledge, observations and theoretical engagement.	TE1: "Now, in (the skill of) listening, what is there? When we are trying to initiate the ability to listen in a child (not clear- implied)? What do we want from him? In listening, the first thing is that he should be able to differentiate, 'listening with discrimination' (English), that he can feel the difference, in words like 'cut', 'put', 'shut' Now when the child hears the differences, the child should be able to understand the sense for 'cut'. Then we will not read 'p-u-t, but will ask him to make sense of it. How does a child learn? The child learns from the teacher- the way he pronounces the words. If you take this in Hindi, then in Hindi there are differences in 'kach' and 'kakh' ". Right? (TE1CO2:33) TE1: "Yes, listening happens when we concentrate. Hearing, you can take without concentration. You can concentrate or not. If a loudspeaker is on, a song is blaring, you can hear a song, but you don't need to concentrate on it, you don't have to listen to it. So, listening is the first important stage which is immense significance for our child. In truth, our language, the first important thing is to listen, the next is to" (TE1CO2:24)	Teacher-educator builds theory and conceptual knowledge on learners' existing individual and collective knowledge, experience, observations and theoretical engagement
	Theory is a given. No reference to learner's / learners' existing knowledge individual or collective.			We learn about their area of interest. And then we add it to this. If you have come into this work, then to teach this topic- what will you do? We will ask them this. They will tell us and then we will add our suggestions. If you do this this way, it will improve. First we will need to understand their area of interest. (TE1Int2-243)

3a. Knowledge treated as external to the learner, something to be acquired.	No microteaching	NA		In-class teaching with mentor feedback only	NA	In-class teaching with mentor and peer feedback	TE1: Class teaching is a part of the BTC. Most important part is class teaching. Yes. Here also. And also in the neighbouring primary schools. All the children go. Just now our 2012 (batch) has gone into the schools to teach. (TE1Int2 137-8) TE1: Peer evaluation, when the children are teaching or they are explaining something, then we ask other students to sit and ask them what did they like and what they thought could be better, we are seeing it already, now you do its criticism too. R: How, when someone is giving a presentation? TE1: Not presentation, when there is class teaching happening, then the class teacher. Like one class teaching is done by going to a school, that is in front of school children, that is field work. But we don't get all the topics done in the field, then we get this done in class, we make a class of peers, when 20 students will teach and the others will do the criticism. And then there is a discussion over this. R: Ok TE1: We get it done and then there is a discussion on this. R: This happens? TE1: Yes, this happens regularly. R: When does this happen? TE1: This happens in the regular routine. When teaching is done, then in the middle class teaching will be done. R: What do you call this? TE1: Class teaching TE1: Class teaching. One is done in school and one with our own students do it among themselves. That is done here. No one goes out for this. Other children don't come, from our 20 children one will teach. We divide the class into 4 batches of 50 students each (indicated, unclear) In this way they will teach (unclear) and we will look at them, analysis happens, and then. (TE1Int3 62-74)	3b. Knowledge generated in the shared context of teaching, learning, personal and social experiences through critical enquiry.
	Lesson plans developed in a formulaic manner	Lesson plans not observed		Well-developed lesson plans as assessed by the teacher-educator, not targeted for the real situation on the ground	Lesson plans not observed	Well-developed lesson plans by teacher-students targeted for the real situation on the field		
	Fixed curriculum	Yes		Fixed curriculum with some inbuilt choices for teacher-educators		Negotiated content		

Teacher-educator is authoritative	<p>In language, many people are not able to differentiate between the sound 's' and 'sh', so, then think about this. Is the child at fault if he learns incorrectly?(implied). If the child says 'Susma' (instead of Sushma) then is it the fault of the child. No, it isn't. Who is at fault? You have seen that any child, depending on which language is spoken in his home that is what he learns to speak. For that he has no knowledge, no education, and no need for a class. Are you in agreement with this? So, now tell me, if the child does not speak (Hindi), if the regional language is Avadhi, then the child will speak Avadhi. Depending on the region the child is from, he speaks that language. So then tell me in the regional language, what is the first thing a child does? (TE1CO2.13)</p>	Teacher-educator balances facilitation with authority	<p>TE1: Which class should we use the local language? If we have to use Avadhi or a local language, Avadhi for this area, another area will have another language, till which class should we use it)?</p> <p>Student 2: We will have to increase the basics slowly from (the) local (language) to Hindi. The way to speak will have to be picked up by those children. Like in class one, we will have to probably teach in the local dialect to make them understand. But slowly transformation will begin and we will have to increase speaking in Hindi.</p> <p>TE1: Why?</p> <p>Student 2: Because Hindi is our national language and it is used in all states, uniformly for writing and speaking.</p> <p>TE1: Very good.</p> <p>Students: Spontaneously start clapping. (TE1CO1.42-47)</p>	Teacher-educator is facilitative	<p>The teacher educator is open in her approach to knowledge, acknowledging she does not know everything and taking the help of the more computer knowledgeable students.</p> <p>That is why with a mobile or internet you can solve the problem immediately. And, I also do another thing. I don't have internet on my phone and I am not so expert in technology, my students are experts, I ask them to look it up immediately on the internet. At the same time, in class I ask them to look it up, feed it in and find it on the internet and then I explain it. My children support me. I stop the class and immediately resolve it. Also, sometimes I am not satisfied with the Internet, then I look for more studies, or consult and expert on phone, from my contacts and I clear it up. (TE1Int...)</p>
No class discussions	NA	Teacher-educator initiates and encourages class discussions that are closed and carried out on the terms of the teacher-educator	<p>Teacher initiates a discussion in class using the microphone so that all the class can hear the discussion.TE: Which class (should we use the local language? If we have to use Avadhi or a local language, Avadhi for this area, another area will have another language, till which class (should we use it)? Student2: We will have to increase the basics slowly from (the) local (language) to Hindi. The way to speak will have to be picked up by those children. Like in class one, we will have to probably teach in the local dialect to make them understand. But slowly transformation will begin and we will have to increase speaking in Hindi.TE1: Why?</p> <p>...Student 2: Because Hindi is our national language and it is used in all states, uniformly for writing and speaking.</p> <p>TE1: Very good. Students: Spontaneously start clapping. (TE1CO1.42-47)</p>	Teacher-educator initiates and encourages class discussions that are open-ended	<p>TE1: OK, very good. But my question is still remains. Again I am in agreement with you that we have to teach in Hindi, this is absolutely right thing, but then why should we teach in the regional language if we have to bring them to Hindi? If you give attention to it you can definitely come up with the answer, till where will the wire go? My class is a very expert class. See till where the wire will reach.</p> <p>Student 3: My name is A***** (in English) and I agree with S*****. Meaning Avadhi language should not be taught till class 8. The most important language is English and our national language is Hindi. People can speak Hindi easily. And children have a great capacity to learn. When Avadhi is not very prevalent then we should focus on it less and more on Hindi. ... then children learn Hindi easily. It is not that they cannot learn English but with Hindi if we also start English then they will also learn that. Like when you call a 'billi' (in Hindi), a 'cat' (in English) the child sees the 'billi'. If we call it 'cat', then the child will see a cat. So, if we teach Hindi and English together then our children will learn very easily. We should teach both Hindi and English together. Thank you. (TE1CO1.52-53)<i>While this was an open-ended discussion, it was not taken beyond this point but brought back to what is prescribed at the national level for teaching of language to teacher-students- a prescribed 2-3 months in the regional language, followed by teaching of Hindi.</i></p>

Only lecture from teacher to learner, only functional interaction	NA	Teacher to learner, with occasional interaction with learner		Teacher-educator interacts with the teacher-students and vice versa	<p>The teacher moves down from the teaching platform and moves towards the central space created by parted chairs with females on one side of the passage and males on the other side.</p> <p>She asks the students a question 'You have to teach such children, what are they like? and continues by setting the rules for how the class will answer her questions. 'Give your name. Put up your hands. Stand up and speak. Any person. Please stand up and speak. Answer. No one? What, sir?'</p> <p><i>No question comes from the learners. Only answers.</i></p> <p>TE1: Ok I would like that anyone (who wants to answer) should stand up and I will reach (the mic) wherever I can reach with this wire and he can come to me and (reach the mic) to answer (TE1C01-40)</p> <p>Student 3: My name is Arundeeep (in English) and I agree with Saurabh Pande. (TE1C01-53)</p>	
	NA	Minimal learner to learner interaction	In whole class interactions.	Learner to learner interaction	Student 3: My name is Arundeeep (in English) and I agree with Saurabh Pande. (TE1C01-53)	
	AUTHORITARIAN			DEMOCRATIC		
4a. Teacher educators instruct and give structured assignments to be submitted by individual students.	One way transmission	Directed dialog is used	TE1: Yes, with questions we can understand how to deal with which level of student. (TE1Inter2-229). In language, many people are not able to differentiate between the sound 's' and 'sh', so, then think about this. Is the child at fault (if he learns incorrectly? - implied). If the child says 'Susma' (Instead of Sushma) then is it the fault of the child (that he pronounces Sushma as Susma - implied). No, it isn't. Who is at fault? (TE1C02-13)	Dialog is used	Yes	4b. Teacher educators evoke responses from students to engage them with deeper discussions and reflection.
	No questions to learners, no questions encouraged from learners.	Closed questions to learners. Teacher-educator invites questions from learners. The environment is teacher-directed	Language, it is very important, it is important from two ends. (Unclear) ...if you teach the child the first skill, what is it? Listening- but where is he getting this skill? The teacher's skill is what? Speaking. Do you agree with this? The second skill that he has, is speaking. What he listens to, like you speak- the teacher, shikshak, mother, society, like it is being spoken, that is what the child will learn. What does this mean? The skill he has in listening will grow depending on the role the class, our society, his teacher, his parents, his family's contribution is very important. Like you have seen, if you take only the Hindi language, like in English, you can see how we Indians speak and how it is different from how foreigners speak English, in the same way there will be different accents, like it is spoken, the child will learn. Ok. (TE1C01-7)	Open ended questions to learners. Environment conducive for learners to ask questions. Questions are applauded and appreciated.	<p>The environment seems conducive to asking questions, yet in the two classes observed, no spontaneous question came from the learners. The teacher kept inviting questions. She also directed closed and open questions. More of the former. She also invited students to question and argue. But did not organize or plan the class to have structured these in as a class activity.</p>	

<p>FRONTAL 'CHALK AND TALK'</p> <p>5a. Training schedule packed by teacher directed activities. Little opportunity for reflection and self-study</p>	<p>Teacher dominated Lecture. No space for reflection</p>		<p>Teacher dominated lecture with teacher-directed limited interaction.</p> <p>Limited space for reflection and open-ended inquiry</p>	<p>Now my next question, when a child comes to us in class 1 then what is his vocabulary, how many words does he know? I just got an answer from here saying 'None.' Class 1, when a child takes admission he is 5+? According to our norms, 5+ Right? Now, tell me the child who is 5+ has a zero vocabulary? (class in unison- No) Can you say this (with conviction)? Someone has said 'Zero.' No (this cannot be true- implied) You tell him to get up, sit down, stand up, go, come, get water, have water, No, ...does he not have a vocabulary? If he understands, then there is vocabulary. You should know that he has about 1200-1500 word vocabulary.</p> <p>And when he passes class 1 and 2 he has a vocabulary of 2500 to 3000 words. OK. Now we come to a point.... (Indistinct) about language as a subject. What do we mean when we say language as a subject? What do you mean when you refer to language (as a subject- implied)? (TE1C01 58-61)</p> <p>It cannot be 100% lecture. Lecture, interaction with students, using teaching learning material, ... material for feedback. So that we can keep taking feedback because we have to make them as active as possible so that achievement level in learning is good. (TE.1Int2 64)</p>	<p>ACTIVE LEARNING</p> <p>Active learning in any way and interactive lectures</p>	<p>5b. Students are encouraged to identify and articulate issues for self-study and critical enquiry. Students maintain reflective journals on their observations, reflections, including conflicts.</p>
				<p>Yes,... Through projects we do content knowledge- ... Like ...eclipse, solar system, we get them to do project work on these. Then send it to me online. Then with this the children (students) develop study habits. They enhance (their capability). The aim is that for our children they should increase their knowledge. They are not expert in all subjects. (TE.1Int2 80-82)</p> <p>..... TE1. Yes, in projects it is like this. Through projects we do content knowledge- like take for instance Geography that I teach. Like sun eclipse or moon eclipse, solar system, we get them to do project work on these. So that...make it in English, no problem, do a lot of this in English, you can present in English.(Sumita: yes) Then send it to me online. (Sumita: yes) Then with this the children (students) develop study habits. They enhance (their capability). The aim is that for our children they should increase their knowledge. They are not expert in all subjects. R: So when they make projects, they must be taking help from the internet? TE1: They have full freedom- take help (from anywhere) from the internet, take help from graduation books, from post-graduation books, because project is not for children. Project is for the pupil teacher. Depending on how much knowledge they have, they will do better for our children. (TE.1Int2-80-83)</p>	<p>or Active learning</p>	

WHOLE CLASS TEACHING		COLLABORATIVE LEARNING		
6a. Students work individually on assignments, in-house tests, field work and practice teaching.	Whole class teaching, emphasis on individual learning	Not observed	Individually directed assignments completed by teacher-students with their original thoughts and views.	Not observed
				Collaborative learning techniques like group work, debates, team presentations, team work, etc.
				<p>R: So, can you tell some examples of any three techniques?</p> <p>TE1: Yes, in projects it is like this. Through projects we do content knowledge- like take for instance Geography that I teach. Like sun eclipse or moon eclipse, solar system, we get them to do project work on these. So that...make it in English, no problem; do a lot of this in English, you can present in English. (Sumita: yes) Then send it to me online. (Sumita: yes) Then with this the children (students) develop study habits. They enhance (their capability). The aim is that for our children they should increase their knowledge. They are not expert in all subjects.</p> <p>R: So when they make projects, they must be taking help from the Internet?</p> <p>TE1: They have full freedom- take help (from anywhere) from the Internet, take help from graduation books, from post-graduation books, because project is not for children. Project is for the pupil teacher. Depending on how much knowledge they have, they will do better for our children. (TE1Int2-80-83)</p> <p>TE1: Yes we definitely do debate. We make them debate a lot...Uses group presentations, discussion (vartalap gati vidhi)</p> <p>Samuh pradachan- individual and group presentations. (TE1Int 72, 70)</p>
				<p>We do group work. We get them to do a lot of group work, peer discussions- we do this, too. Reflective, yes we do this definitely- we keep taking their opinions. What is your peer doing, we definitely to do problem solving, observation. Peer evaluation- we don't do so much of this. Yes, we take a bit of feedback. We don't do too much of peer evaluation. (TE1Int2-76)R: And how many projects per semester?TE1: One project a semester. And this is not given individually. We give it to a group. (Sumita: Yes) For example, we make a group of 10.it could be (a group of) 6 or 10. Depending on the number of students. And we decide the topics, which are current topics in our course. R: For example? TE1: Like for instance in our course we have the solar system. This has natural resources. Everything is in the course. So, in solar system, we make a group of 10 and gave them the topic of solar system. Now what they do is, is they prepare the complete literature (content). One will prepare it in Hindi and one in English. One will prepare a ppt. One will prepare a TLM. One will create a photo album for it. One will create a project model. And like this sometimes we give two people TLMs. This way they work in a team and do team work. The topic is one, with different individual work. (TE1Int2-89-92)</p>
				6b. Students encouraged to work in teams undertaking classroom and learner's observations, interaction and projects across diverse courses. Group presentations encouraged.

Standard formats for records	Not observed	Records with some amount of critical inputs	Not observed	Field work, practice :teaching critiqued on the field	Not observed
No peer evaluation	Not observed	Peer comments invited but evaluation done by teacher-educator	Not observed	Evaluation done by peers, on-the-field and by teacher-educators	<p>Not observed</p> <p>R: Does the teacher ask the questions or students? TE1: No, the children (students) themselves ask the questions. The children (student teachers) themselves make the questions about the topic. They ask other people and get replies. Others make their own topic and ask others.</p> <p>R: They ask questions of their own topic? TE1: Now just suppose there are 20 topics in the syllabus. We have distributed it to 19 groups. Only one person will be master of one topic, only. In that we get them to have discussions, etc. so with this all the topics are revised by the whole class. (TEint3 51-54)</p> <p>TE1: Peer evaluation, when the children are teaching or they are explaining something, then we ask other students to sit and ask them what did they like and what they thought could be better, we are seeing it already, now you do its criticism too.</p> <p>R: How, when someone is giving a presentation? TE1: Not presentation, when there is class teaching happening, then the class teacher...Like one class teaching is done by going to a school, that is in front of school children, that is field work. But we don't get all the topics done in the field, then we get this done in class, we make a class of peers, when 20 students will teach and the others will do the criticism. And then there is a discussion over this.</p> <p>R: Ok (TE1int3 62-4)</p>
8a. No "space" to address students' assumptions about social realities, the learner and the process of learning in class.	No "space" to address students' assumptions about social realities, the learner and the process of learning in class.	Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates only within a framework of fixed knowledge	Understanding their own subjects in terms of knowledge or skill and relating this to language.	Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse through discussion, debates and assignments	8b. Learning "spaces" provided to examine students' own position in society and their assumptions as part of classroom discourse.
9a. No "space" to examine students' conceptions of subject-knowledge except through tests and examinations	No "space" to examine students' conceptions of subject-knowledge except through tests and examinations	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom discussion, critiquing of practice, presentations, and debates within a framework of fixed knowledge	<p>Student 2: I am in complete agreement that we should teach in Avadhi because we should teach the children in the language they can understand. The main thing is communication, the conversational exchange that there should be between a student and teacher. It should be in that medium in which the student and teacher should be able to understand each other and remember things.</p> <p>TE1: Which class? If we have to use Avadhi or a local language, Avadhi for this area, another area will have another language, till which class?</p> <p>Student 2: We will have to increase the basics slowly from local to Hindi. The way to speak will have to be picked up by those children. Like in class one we will have to probably teach in the local dialect to make them understand. But slowly transformation will begin and we will have to increase speaking in Hindi.</p> <p>TE1: Why?</p> <p>Student 2: Because Hindi is our national language and it is</p>	Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge and assignments through classroom discussion, critiquing of practice, presentations, debates and assignments	9b. Structured "space" provided to revisit, examine and challenge (mis)conceptions of knowledge.

if I give you the limited things then maybe you will be able to give the answer to the clue. Yes, stand up and answer, not in too much detail, in just a few words, please.

Student 5: According to their education, regional language is used because understanding is easy because the child is in that environment since childhood and they can understand things. If we are able to explain using the same language then the transformation to Hindi or English starts happening because then they start understanding the theory and science also. Once they understand science and for this they need to understand a language which can explain science.

Appendix 4.3: Diagram with quotes and descriptors from observations and interviews

CHILD-CENTRED EDUCATION

By child centred we mean...when our student will go to teach children he will have to see what the need of the child is. If the child is intelligent, so we will have to teach him accordingly. If the child is weak, we will have to teach him accordingly. If there is any special need then he will have to be taught accordingly. So, that we can explain that concept to him well. This is child-centredness. It is based on need, based on the mental level of the child, physical problems, which society he is from, looking at all this; we need to teach the child.

LCE FOR CHILDREN AND ADULTS

Yes. Learning by practice, learning by doing, learning by activities, learning by play. We can give activities to them in the form of play. So, with small children we need to apply all this. This is the difference between small children and older children (students). We will not do all this here. Look, for small children you need to tell everything. This could be alphabets, writing, reading, small children need to teach everything new. These children (students) don't need to be taught anything new. They have come having studied subjects. These need to be taught subject related content, how should this be taught to young children, this has to be taught here. So, here practice has great importance. ...area of interest is very important because we cannot force them to learn. Small children can be made to sit in class, but if we don't see their area of interest then they will not sit in class.

COMMITMENT, LEADING BY EXAMPLE

'The teacher should have her own commitment (emphasised). Whatever she says to her students, she should follow it in her life. Should not make false promises. What I want students to do, I should first show that I can do it.

ENCOURAGE INQUIRY

'I never tell a student that he is wrong. ... I challenge them to ask more questions. I don't force a student ever, I do not argue with him.'

OPEN TO LEARNING

'She should accept that she does not know it, but will look it up and tell and ask the students to also look it up. ... You can see what good children come to our institute and I always, so I say that these things are not clear to me, if you know it, then someone tell me, otherwise I will look it up and get back'(TE1Int2-54)

ACCEPTING NEW TECHNOLOGIES

'Yes, I clear it up. That is why with a mobile or internet you can solve the problem immediately. And, I also do another thing. .. my students are experts, I ask them to look it up immediately on the internet. At the same time, in class I ask them to look it up, feed it in and find it on the internet and then I explain it. My children support me. I stop the class and immediately resolve it. Also, sometimes I am not satisfied with the Internet, then I look for more studies, or consult and expert on phone, from my contacts and I clear it up.'

INTERACTIVE

'You can see what good children come to our institute and I conduct a lot of discussions and my class is always very interactive, always, so I say that these things are not clear to me, if you know it, then someone tell me, otherwise I will look it up and get back.'

RETAINING CONTROL OF CLASS ACTIVITIES AND CONTENT

The classes were teacher led full of activities planned by the teacher. Student autonomy was low. The TE had the correct answers.

LEARNER-CENTRED EDUCATION

By learner centred we mean...like for our students, this is a learner centre. They are learning here so this is a learner centre. And for the para-teachers, the Block is the learner centre. They have to come there (for learning). Learning standard is learner centred. Other than this, then I don't know (sounding a little on edge) If it is something else then I don't know. For us learner centre is where the child will learn. is learner centre and child-centre same thing? Same thing. I think there is not difference between the two. Child centre and learner centre is the same thing. Depending on the interaction, how much we make them active in class, we will understand them better, what they want to know. The amount we take questions from them, in accordance we will fulfill them. This is the best way. Yes, with questions we can understand how to deal with which level of student. For small children it will be a little different. For an older student...for a small child we will have to make such a thing...that he will work on it a bit, self-learning materials will have to be handed to the child, according to mental level. Because (the child) with high mental level has very fast learning, but the one with less (intelligence) we have to ready material differently for him,

INTERACTIVE LECTURE

Class observation 1
Consisted of 11 closed questions, 7 open ended questions, 7 student's responses, 6 corralled answers, 3 sets of applause from the class mostly for an answer well-articulated, 3 invitations to interact from the TE, 7 paragraphs of lectures with 26 rhetorical questions for which no answers were required.

Class observation 2

Less interactive
TE tired
Closed questions and corralled answers were the same 6
Rhetorical questions 28 in 5-7 paragraphs of lectures.

METHODS OF TEACHING

Lecture
Group work
Discussion
Field work
Project work
Peer evaluations
Team presentations
Debate
Group presentations
Individual presentations
Class teaching
Practice teaching
Mentoring
Facilitation
Participatory methods

GROUP WORK

20 groups of 10 people each. They are given a topic each to work on from various subjects. A team leader is appointed. He ensures that the work is done. The teams are given 8 days and then they sit in groups and present to each other e.g. A to B and B to C and C to D. During the group discussion, each group gets questions on their topics from the other group, to which they have to answer. If a group has not prepared questions, they pass. Students ask questions about the topic they presented to the audience. All the topics are from the syllabus. The audience critique the students who teach their topic, show presentations, demonstrate, etc. with TLMs, and so on.

PRACTICE AND IN-CLASS TEACHING

Padha Yojna pusticka with planned lesson plans
The local teacher in the practice school is trained to fill in the Samolochna Pustika.

Psychological

Pedagogy of learner-centred teaching, interactive lecture, language, respect

WHITEBOARD

The TE used the white board in both classes to illustrate concepts. They could not be deciphered by more than half the class, sitting beyond halfway point.

POWER POINT PRESENTATION

The TE took help to create a power point presentation in class. The person to help her project it was not in class. Someone else who was to do the job could not-he struggled with it the entire duration of second class observed, with screen changing up front in the class, distracting attention away from the TE's lecture and class activities.

MICROPHONES and AMBIENT SOUND

The TE has to speak through a microphone otherwise the students beyond row 5 cannot hear her clearly. The students come up to the microphone to speak into it so that the rest of the class can hear them. The ceiling fans add to the ambient city sounds. The walls and windows are hard, bouncing the sound off their hard surfaces.

CLASS SIZE AND NUMBER OF COHORT

The classroom size is 28'x56' (approx...) packed with 160 + students. with about 80 girls and 80 boys sitting in two almost distinct rows. The room has two columns of chairs with rows of 8 chairs sticking to each other. There is a central passage and no space between the chairs and the walls of the room.

It is difficult to hold an interactive class in a classroom of this size and number of students. The teacher moves down from the teaching platform down the aisle with a microphone trying to reach all the students from the aisle.

Material

Class size, number of students in the cohort, working equipment

FACILITIES FOR HANDOUTS, ETC.

Photocopies
Presentations, etc.

TOOLS AND SIGNS:
PSYCHOLOGICAL

TOOLS AND SIGNS:
MATERIAL

Teacher students
Experience of Learner-centred education

Division of labour
Roles of subject, object
And other responsibilities

Community and its role

Learners, peers, other TEs, SCERT

TE DEVELOPMENT
TE1 had completed her MED. In 1996, through distance learning. MED. The TE had learned from experience what was in part covered by the MED. She learned about global education systems, different kinds of research, ability to write.

JACK OF ALL TRADES
TEs are expected to teach any subject assigned to them though the attempt and intention is to give each faculty a class in keeping with her area of specialization.

ACTIVITY Learner-centred teaching

STUDENT SELECTION
Graduates on merit admitted.
Most students are MTech, BTech, MBA, BBA, Finance, Science students. Many from English medium schools. 6th pay commission has raised teacher salaries. Lack of teachers ensures a sure job to all those who make it through the TET examination. This makes it an attractive stepping stone to first preference jobs in fields of specialization of the teacher-students before they gained admission in the BTC programme. The TEs estimate that 30-40% students are not interested in becoming teachers.

There is no entrance or aptitude test.

LOW PRIORITY TO CLASSES
'When classes are missed because of field work like mentoring Block level teachers, the classes are missed. Students are expected to make them up on their own.'

MANDATORY ATTENDANCE
90% attendance is mandatory. You fail. You cannot appear in the examination.... Principal does not let you appear. 90%, 10% relaxation.

...your attendance was short, you did not appear for one semester. In the next semester you had full attendance, you have to make up your attendance, with full attendance you can give your paper as a 'back paper'. Then in one year you have to clear two semesters together. This is more difficult. It is just like a punishment. Nobody want this.
4 times a day: 10:00 am, 1:20 pm, before lunch, 2:00 pm after lunch, 4:30 after class.

CRITICAL EVALUATION
'Yes, marks. They are done seriously. The Principal sees them. The whole team sits. All the staff is there. Marks are sent on, 100 marks for internals.'

FACULTY RECRUITMENT
Most teacher educators (full number) were secondary school teachers who had been appointed to the DIET to become teacher educators.
TE1: 17 years as a secondary school teacher, promoted to being a Lecturer when she joined the DIET. 16 years as TE.

SCHEDULING
Time tables are drawn up. TEs seem to be getting many unscheduled activities. e.g. 'You come in the day thinking you don't have much to do today only to discover that you are carrying work home! Too much work!' 'Lucknow is not a good place to come to. It is only good for those who only want to work.' I don't know where we will get the resources (Principal)

OTHER WORK

- Pre-teacher training:
1. Training of para teachers in BTC: TE1 had responsibility of Lucknow.
692 para-teachers in Batch 2011-2013
1146 para-teachers in Batch 2012-14
129 para-teachers in Batch 2013-15
- Two regular BTC batches (400 students)
- In-service training:
Primary and junior level teacher based in individual needs refresher courses and policy related courses like RTI, etc. Mentoring of Block teachers
- Government Schemes propagation
Research, baseline surveys, World Bank research projects
Local projects from DM's office
- Sustainability work for DIET
Translations, questionnaires, trainings
- Resource person at State level for a particular subject.
- Conducting trainings
- Developing modules and curricula at the state level.